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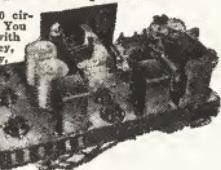
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AMAZING STORIES

Scientific Fiction

Vol. 6

February, 1932

No. 11

In Our Next Issue

THE CITIES OF ARDATHIA, by Francis Flagg. In these troublous times of economic stress, one thing only continues to forge ahead with almost unabated zeal—mechanical inventions. How much can be attributed to machinery as a direct cause for our current depression is a question eminent economists cannot seem to agree upon. It is certain that our new inventions-in-the-making must have a far-reaching effect—whether good or evil depends largely on how efficiently problems are handled by those in power. Francis Flagg seems a little pessimistic about the future, but he is very convincing.

THE LIGHT FROM INFINITY, by L. A. Eshbach. Here is an interplanetary story that is different. Based on accepted theories of today, this well-known author builds a scientific story, unique in its treatment and of uninterrupted interest to science fiction fans.

TROYANA, by Capt. S. P. Meek, U. S. A. (A Serial in three parts) Part II. If Atlantis is hidden and functioning now, as many believe it is, then what our author tells us about so graphically in this second instalment is not the least beyond possibility. It is exceedingly doubtful whether any of us alive today will get any verification of the truth or falsity of the existence of Atlantis, but, at any rate, in this sequel to the "Drums of Tapajos" Capt. Meek assumes the truth of this "legend" with seemingly perfect justification.

THE LEMURIAN DOCUMENTS, by J. Lewis Burtt, No. 2: "The Gorgons." Here is the second in a series of stories lifted out of the pages of mythology and drawn up into real, virile tales of unusual interest. This time the famous Easter Islands are very much in evidence.

And Other Unusual Science Fiction

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change of address must reach us five weeks in advance of
the next date of issue.

Our Cover

This issue depicts a scene from the story entitled, "The Planet of the Double Sun," by Neil R. Jones, in which the metal-bound crew of a flying ship are shown getting ready to explore the planet of the double sun—entirely unaware of the invisible dangers lurking thereon.

Cover illustration by Morey

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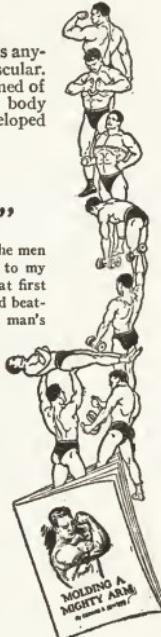
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VOLUME
6

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No. 11

AMAZING STORIES

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T. O'CONOR SLOANE, Ph.D., *Editor*

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Editorial and General Offices: 350 Hudson Street, New York, N. Y.

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The Brownian Movement

By T. O'Conor Sloane, Ph.D.

LN a general way we may say that a powerful microscope brings its objective lens, that is, the lens of the lower and smaller end, extremely close to its object. Many an amateur has punched holes through his slide by a fraction of a turn too much of the focusing screw. If we attempt the problem of looking at motes, as we are calling them, with a microscope, it will be found practically an impossibility to do it by direct vision. In other words, the eye looking at a beam of light sees these motes on account of their diffraction of light waves. So, in order to come as close to seeing them as possible, what is called the ultra-microscope was devised. The general principle of this seems very simple. In a crude way it may be said to operate by magnifying a beam of light by means of its contents of minute particles. Thus the microscope is set up as if to look at an object above its stage, but the object is not illuminated from below, nor does it rest on the glass slide, but a ray of light is shot in between the objective and the slide, and the space may be extremely small, it is to be filled in with a liquid. Upon looking through the microscope, the motes in the beam will be seen dancing about with great rapidity. In the early part of the last century there was a botanist who won great renown and was considered in his time as one of the world's greatest authorities on his own subjects. It is to him that we have alluded above. In the organic world, the spores of mosses or fungi are sometimes extremely small. This led our botanist to make a physical discovery.

Anybody who wishes to amuse himself with one of the phenomena may scatter upon the surface of a tumbler of water some lycopodium, which are the spores or seeds, as we may term them, of a club moss. The water does not moisten them. If you put your finger down into the water through this layer, which may be quite thin, the water will press the little spores against the finger and when you take it out, it will be perfectly dry. Many metallic objects in this water will be supported, such as a dime, pins, needles and the like, so here we have the plant world giving us the mote. Well, the botanist, Brown, being observant of things that happened about him, got some small particles of spore-like substances from some of these plants or specimens into the water and there they began dancing about in perpetual agitation. Gradually the question was formulated of why they did not stay still and the motion of these particles was termed the Brownian motion. Nearly a century after this observation they were used in the investigation of the molecule. They were taken as acting as the molecule itself would and because of their extremely small dimensions and the perpetual motion of the molecules was exhibited by them indirectly.

Robert Brown was a botanist, who lived in the 18th and 19th centuries. He won a high position as a botanist but by accident or, to put it better, by observation, he discovered in 1827 the curious motion of minute particles suspended in a liquid—not particles floating on the surface but particles completely im-

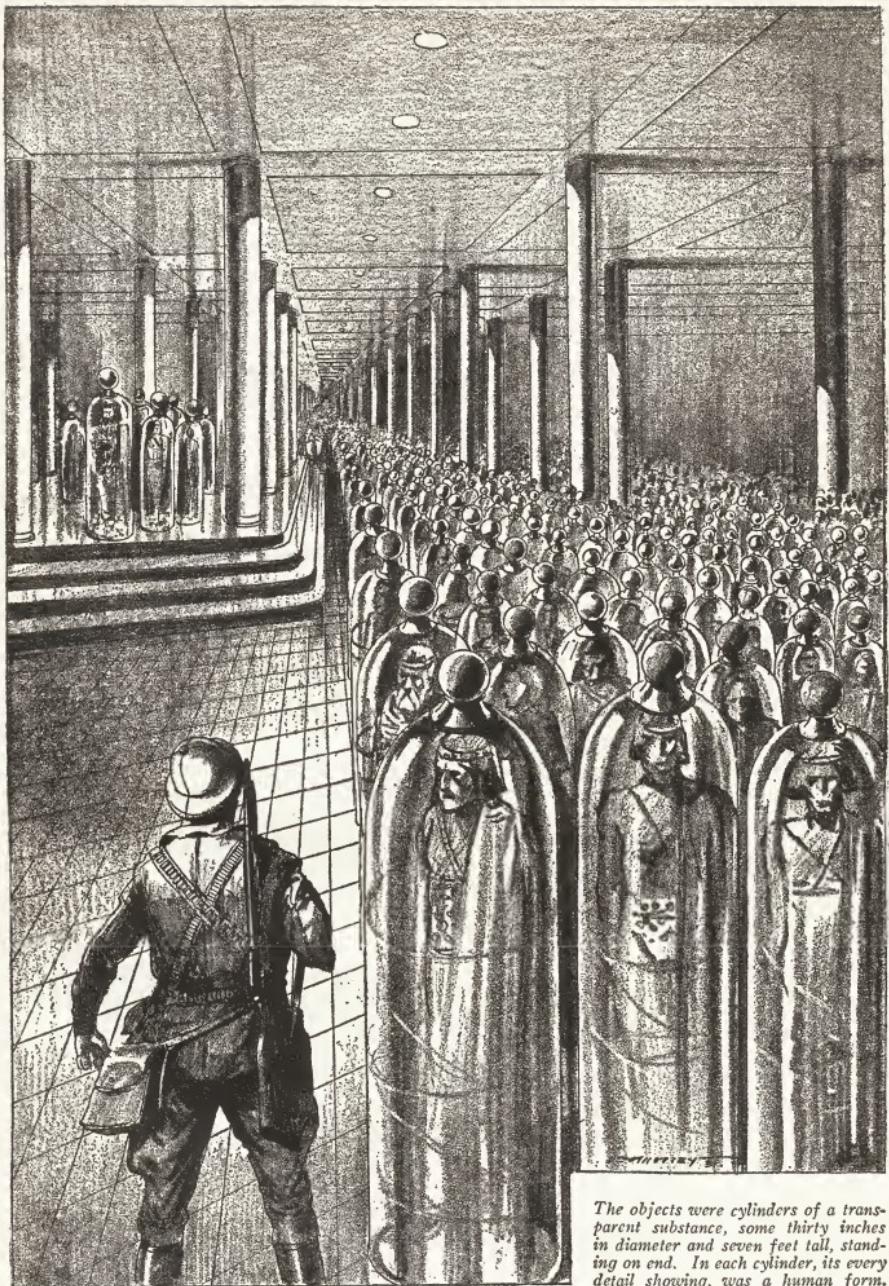
mersed with liquid on all sides of them, above and below them. They must be minute, not attaining that distinction in the molecular sense but as referred to mass. A beam of light traversing such a mixture will make it possible to apply a microscope and see the endless motions of the little particles, the most restless of "visible" things, and known only because they diffract light.

The motions never cease, the particles, if heavier than the liquid, do not sink as they normally would. They seem to be kept in motion by impacts with some minute, absolutely invisible bodies, and the bodies which strike them are much smaller than they, but never cease their work. The striking bodies are molecules—these we cannot see directly or indirectly—the bodies which we can observe indirectly by light dispersion are masses. The molecules of the liquid are in perpetual motion, and impart it to the masses or "motes" suspended in it. We get a pretty good representation of what a quantity of molecules can do. A sealed slide will show this motion forever. It is the true *perpetuum mobile*. It was nearly visioned in the minds of Epicurus and of Lucretius some twenty centuries ago. The French naturalist, Buffon, came near to discovering it in the sixteenth century.

Crystals of quartz sometimes contain cavities in which are enclosed a transparent liquid. These cavities have existed unchanged for millions of years. The sealed-up liquids when examined by the ultra-microscope, exhibit the same zigzag motion shown by water containing minute particles. They arrest and diffract light. For uncounted ages the Brownian movements have been going on without ceasing in these little quantities of liquid. As far as we know, it is only the absolute zero which would stop them. The motion is attributed to the motions of the molecules, almost infinitely smaller than the Brownian particles which collide with them and push them about without a moment of rest. The particles move through irregular paths. The length of the paths is short, because the molecule does the striking, and it is very much smaller than the smallest particle that can diffract light for our microscopes. The perpetual motion of the molecules of a liquid are indicated to us by the minute particles, whose ceaseless motions in straight lines definitely indicate collisions.

The minuteness of molecules has been calculated with rather astonishing results. One result was that if each one of the molecules in a glass of water could be changed into a grain of sand, enough sand would be given to cover the earth to a depth of one hundred feet. Another calculation tells us that if we poured a liter, about a quart, of water into the sea, and it was completely mixed with the water of the oceans, and if we took a liter out, it would contain 25,000 of the molecules from the first liter. And these are the colliding things that produce the motions.

Robert Brown made his observation over a century ago. It is only recently that it has been appreciated at its importance in molecular physics.



The objects were cylinders of a transparent substance, some thirty inches in diameter and seven feet tall, standing on end. In each cylinder, its every detail showing, was a human form.

A Thrilling Sequel to "*The Drums of Tapajos*"

Troyana

PART I

By Capt. S. P. Meek, U. S. A.

MUCH has been attributed to the possibilities to be found in the so-called Lost Island, Atlantis. Capt. Meek has more than hinted at some of these possible wonders in his "*The Drums of Tapajos*," but in this sequel, which comes as a direct compliance with the numerous demands for it, this favorite author gives us ideas and theories galore, weaving all into a plausible science fiction narrative of rare merit. Even if you have missed the first story, you will have no difficulty in following the thread in the first instalment.

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CHAPTER I

The Great Magician

NO, thank you," I said when Childers had finished. "I appreciate the invitation and all that, but I'll stay right here on the *Rio Xingu*."

All four of them looked disappointed.

"Why, Mr. Murdock? We'll furnish the grubstake and all equipment, pay you a salary, and give you double shares of all gold found, as I told you. We feel that your services are worth that to us. We'll even make it triple shares, if you insist."

"No, thank you," I said again. "Even that doesn't tempt me. Why are you chaps so insistent on going west? You're doing pretty well here, aren't you?"

"Yes, fairly well, but this is chicken feed compared to what we'd get there. Listen, Mr. Murdock—Tom Harley here is a mining engineer and he knows what he is talking about. He says this gold must wash down from the west."

"I don't doubt that there is gold west of here. I've heard rumors of it before, but I also know that it isn't to be had. Gentlemen, I've knocked around this part of South America for a good many years, and I've never heard of a man who went into the *Tierra Prohibitiva* and came back to tell about it. It's not for me. I don't think you'll find any old-timer who'll go with you, and I'm positive you won't find an Indian who will."

"*Tierra Prohibitiva?*" Pete Murchison called it that yesterday when we were talking with him. What does it mean?"

"The phrase translates 'forbidden land,' Mr. Childers, and it means just that. Entrance to the section

lying between the *Rio Xingu* on the east and the *Rio Tapajos* on the west is forbidden."

"Forbidden by whom?"

"I don't know. All I know is that no one has ever gone into that section and come out to tell about it."

"Two parties have gone in since we came here three months ago, and there were others before that, Mr. Murdock."

"Yes, but none of them has returned. None of them ever will, in my humble opinion."

"What will prevent it?"

"Again, I don't know. I have heard all kinds of tales. Tales of deep, impassable swamps, peopled by strange terrible monsters, immune to rifle bullets. Tales of savage unconquerable Indian tribes, who use an especially virulent poison on their arrows. Strangest of all, tales of a race of white wizards who bewitch everyone who enters their domain. Which is right, I don't know."

"But that's all nonsense, Mr. Murdock. There aren't any wizards, you know."

"When you've knocked around this country as long as I have, you'll believe almost anything. Where there's that much smoke, there must be some fire. At any rate, I don't care to enter it."

"We're going in, guide or no guide. Are you sure we couldn't make terms that would tempt you?"

"Absolutely sure. I have no desire to die just yet. I'm going down to Belem next week. If you have any gold to go, I'll be glad to take it down on the usual terms."

"Thanks, Mr. Murdock, we'll be glad to send down a few pounds. Sorry you won't join us. If you change your mind before Saturday, just speak up. We'll be glad to have you along."

"I appreciate it, gentlemen, but my mind is already

made up. I wish you all the luck in the world." "Thanks, Mr. Murdock."

I rose and walked away. Had I wished to pan gold, I would have been satisfied with the workings, there on the upper reaches of the *Xingu*, but the work was too tough for me. Men worked waist deep in the boiling water with leeches clustering on their legs, with sting rays gashing them, and between times, the *piranhas* (cannibal fishes) taking nibbles out of places the other vermin had missed. I was well known on the river, and I could make more carting gold down to Belém on a twenty percent commission basis than I could by washing it. Certainly entering the *Tierra Prohibitiva* was the last thing I had in mind, yet, in the end, I entered it—and lived to come out again too. This was how it came about.

Late that evening an Indian whom I had had with me on trips in the past, and whom I knew to be thoroughly loyal and dependable, came to my tent. He greeted me humbly enough and asked permission to speak to me.

"What is it, Juan?" I asked.

"Señor Murdock," he replied, looking at the ground while he spoke, "I am come to take you to the west where much gold can be had."

I laughed outright at the suggestion.

"Into the *Tierra Prohibitiva*?" I asked. "You must think the *perro rabioso* (mad dog) has bitten me. I have no wish to die."

"No, Señor," he protested earnestly, "you will not die. I am told that you are sacred. Those whom the Great Magician takes under his robe do not die until the word is given. Also I am bidden to say that much gold will be earned."

"Who in thunder is the 'Great Magician'?" I demanded.

The native shut up like a clam. I tried to pump him, until I was afraid I would lose caste by my curiosity, but not a word beyond what I have told could I dig out of him. I dismissed him at last with the remark that it would be a cold day in March when I left the *Xingu* behind me and chased after the pot of gold which lay under the setting sun. He left me with a parting word to the effect that I had been sent for and would come whether I wanted to or not. I rose to kick him out at that, but he faded into the darkness without further words.

I lay down to sleep that night wondering what it was all about, but I didn't have to wonder long. I hadn't slept more than an hour before I was awakened by having some heavy thing thrown over my head. I tried to jump to my feet, but it was no use. Strong hands caught me and held me down. In a minute I was securely bound and couldn't move. I opened my mouth to yell, but a fold of the blanket was stuffed into it. I was simply but effectually gagged.

My captors carried me from my tent and dumped me into a canoe. Two paddles started and we slipped along the bank of the river, heading down-stream. Soon we left the *Xingu*, as I could tell by the sound of the water, and started west up one of its tributaries. It seemed that I was doomed to visit the prohibited land whether I would or no.

For several hours there was no change. I could feel that daybreak was close at hand. Presently the canoe stopped and through the folds of the blanket I could hear an Indian's voice. It was the voice of Juan.

"Señor Murdock," he said, "if you will promise to go

quietly with us with no fight, we will untie you. No harm will come to you and much gold will be earned. If you do not promise, you must stay tied and go anyway. If you promise, nod your head."

I THOUGHT rapidly. If I were doomed for a native sacrifice, as seemed likely, I would gain nothing by remaining tied. I had tested my bonds during the night and they were beyond my power to break or unloose. On the other hand, if I were unbound from the ropes, I would be bound by my promise, and I have always made it a practice to keep my word—where natives are concerned. I couldn't see where I had anything to lose, so I nodded vigorously.

In a moment I was unbound. Day was breaking. I sat in a four-man dugout on a little stream which led due west through the jungle. Besides Juan, a clean-limbed Indian youth was in the boat.

"This is my nephew, Concepcion, Señor," said Juan. "He comes with us. Do you wish to paddle?"

"Where are we going, Juan, and why did you kidnap me?" I asked.

"You will know when we arrive, Señor," he replied. "The Great Magician wishes to see you and he sent me for you. You would not come willingly, so I was forced to bring you."

"Who the devil is the 'Great Magician'?" I demanded again.

That question stopped Juan's mouth at once. Not another word could I get out of him. I finally made the best of a bad bargain and took a paddle.

For three days we made our way up the stream until it petered out in a great swamp. We landed on a piece of firm ground which stood a few inches above the water level, and fastened our canoe. We struck out overland to the west for a couple of miles, Juan leading and Concepcion bringing up the rear. Suddenly, without warning, Concepcion's blanket was thrown over my head. In a moment I was securely tied, only my legs remaining free from bonds.

"I am sorry, Señor Murdock," came Juan's voice, "but it is ordered that you do not see your route. Follow me and fear no danger."

There was nothing else to do, so I toddled along, just as if I liked it. I was led along a twisting road for an hour, until I completely lost all sense of direction. We stopped and I felt Juan fumbling with my bonds. I stood still, waiting for what might happen. Presently a deep resonant voice spoke before me so suddenly that I jumped.

"Remove your hoodwink," it said.

I threw off the blanket and stood there gasping like a fish out of water. Before me stood a *white man*. He stood a good six feet in his flat leather sandals, straight as an arrow, and slender, but with an air of great strength about his body. He wore a long white robe with blue trimmings, which was girded high on his leather-covered thighs. About his neck was a necklace of flat plates from which a jewel dangled. All this I saw later, for my first glance was at his face.

He had a tall, broad forehead, above a pair of heavy black eyebrows, beneath which blazed large eyes. His nose was high-bridged and aquiline, in fact, almost hooked. His whole face had a slight Semitic cast which was borne out by the curly black hair which rippled down to his shoulders. On his countenance was a terrible air

of power and majesty. I felt that he was looking through me into my very soul and that my inmost thoughts were bare to him. He was such a man as I have often fancied the ancient Hebrew prophets must have been. He stared at me for a moment and then took a step forward and extended his right hand. I grasped it and felt a strangely familiar pressure. In surprise, I returned the pressure in the proper manner and he dropped my hand.

"You are welcome, Brother Murdock," he said in his sonorous voice, "to the *Tierra Prohibita*. A need for your services has arisen and you were sent for. I am glad that you came of your own free will and accord when we called."

"I didn't—" I began, but he interrupted me promptly.

"Of your own free will and accord, for so shall you depart in like manner," he said. "The service which your brethren require of you is this. You will be reconducted to your boat and there you will find waiting for you a man. He will be a man whose mind is a complete blank. It will be needful for you to take him by the hand and lead him like a child. He carries much treasure with him, and this must be safe."

"We know you well, Brother Murdock, and it is our faith in your honesty and loyalty which has caused you to be given this trust. This brother, for such he is, you will lead back to the *Rio Xingu* and thence to Belem. There your mission will be at an end. Before you reach Belem, in fact, in sixty-four days from now, this brother's mind will return, all but his memory for the past three years. That will never return. For your reward, this is to be given you. It will repay you for the profit you will lose in not being able to take gold with you to Belem. And now may the blessing of the Great Architect rest on you and on us all, and may your ways be ever those of peace and plenty."

"So mote it be!" I exclaimed involuntarily.

Hardly had I spoken than the blanket was again thrown over my head. With no fear in my heart, I followed my conductor to the place where we had left the canoe. The blanket was removed and before me stood a man staring at vacancy. He was dressed in ordinary hunting garb with leather leggings. About his waist I could see the bulge of a belt worn under his clothing. He stood a good three inches over six feet and must have weighed at least two hundred in the buff. His hair was coal-black, but I knew instinctively that he was of a different race than that of the man who had spoken to me in the jungle. His face was rather round and his nose was not high. Nor was there about him any of the air of power and intelligence which had marked the other.

I touched him on the arm. He turned and stared at me, his face the most absolutely devoid of expression of any I have ever seen."

"My name is Murdock," I said extending my hand. He took it mechanically but made no reply.

"Let's get in the canoe and start home," I suggested.

He turned without a word and took his place in the canoe. As we started, he picked up a paddle. I knew in an instant that, no matter what else he was, he was an old hand in the South American jungle.

HE didn't speak all the way down to the *Rio Xingu*. I had to wait on him hand and foot. It was an onerous task but when I opened the package I had been handed, I knew the reward was worth any effort. The package contained an even dozen diamonds, all of them of

the first water. They ranged in size from a carat to one monster which weighed over ten. I showed the gems to my charge, but they woke no response in his lack-luster eyes. There was nothing to do except to wait until his memory returned. Even then, if the man of the jungle spoke the truth, he would be able to tell me nothing.

Of course I tried to pump Juan and Concepcion, but the Sphinx was loquacious compared with those Indians. "It is forbidden to speak," was all that I could get out of them. I gave the matter up at last and decided that it was just one of those things I would never learn about. But for an unforeseen accident, I probably never would have found it out.

We left the gold camp the day after we arrived and headed down the *Xingu* on our long trip. All went well for the first two weeks and then our canoe was upset in a rapid and we had to swim for it. My charge was able to take care of himself in the water and while we lost some equipment, it didn't seem very serious. That night, however, he showed a little fever and the next morning it was a good deal worse.

We had saved a good deal of food and my medicine chest, so I camped right where we were, until he was well enough to travel again. Instead of improving, he got steadily worse. The third night delirium took him and he began to talk. I listened carefully, but it was all a lot of senseless babble about something he called "troyana" and a lot of other incomprehensible things. Toward morning he quieted down for a time, and then rose to a sitting position and stared into the distance. His lips moved and words came from them clearly and distinctly.

"The drums!" he cried. "The drums of Tapajos! Amos must have got hold of some power. Look behind you, Bob! Where's Nankivell? Oh, there you are, youngster. Keep your eyes open, Frank, they'll charge in a minute. Good work, Bob, that was a dandy! I always said the Maristons could shoot!"

I leaped to my feet in astonishment. Bob Mariston and Frank Nankivell had been officers of my regiment during the World War. They had resigned and gone off on some hair-brained scheme with George Duncan, another officer of the regiment, whom I had always thought too level-headed for that sort of nonsense. We had discussed them a good deal in the mess after they had left, but I was demobilized a month later and I hadn't heard of any of them from that day to this.

I bent over his cot.

"Yes, yes, go on," I urged him. "What about Mariston and Nankivell?"

"The hooves of the Calf are drumming," he muttered. "Warn Zephaniah!"

He slipped back on the couch and relaxed into a state of coma. I thought it better not to rouse him. The next morning his fever was higher and he began to babble again, this time more connectedly. I listened with all my ears. Gradually an incredible story began to take form and piece itself together. I took as elaborate notes as I could of his ramblings, which continued at intervals for two weeks. Many times he repeated himself and went over the same ground, which gave me an opportunity to correct and elaborate my notes. At last the fever subsided and in time he was able to travel.

We made our way steadily toward Belem. On the very day the man of the jungle had predicted, the memory of my charge returned. He was much surprised to find himself in my company and I explained

as best I could how it came about. He listened with amazement.

"I must have been out of my head," he said at last. "The last thing I remember was being in Belem waiting for something to show up. I haven't seen Mariston for years and never heard of the rest you name. What month is this?"

I told him and added the year for good measure. He looked at me in utter amazement and asked me to repeat it. I did so and he made no comment for several minutes.

"Three years gone out of my life," he said musingly. "I wonder what happened during that time?"

For reply I showed him the notes I had made of his ramblings. Together we tried to piece them out.

"It's Greek to me," he said at last. "Either I've been through some weird experiences or I had a pretty bad nightmare. I can't remember a bit of it. Above all, I'd like to know where I picked up these things."

I gasped as I looked at the stream of living coruscating brilliance he poured out on the cot. I had thought that my diamonds represented a treasure, but they were nothing compared to those he had. I have never seen such diamonds. They were worth millions if they were worth a cent. I could not explain their presence any more than he could, except that they must have been a present from the man I had met in the jungle. I parted with my charge at Belem, his parting words ringing in my ears.

"By all means, Murdock, tell that yarn I babbled to you to anyone who will listen. Write it down and publish it for all I care. I'm going to sell these diamonds, or some of them, and then do you know what I'm going to do? It has been my life-long ambition to buck the tiger at Monte Carlo and I'm going there on the fastest boat."

I never saw him again. Either he had been through one of the wierdest experiences that I have ever heard of, or else he had a tremendously over-developed imagination, and in that case, how can you explain the diamonds? At any rate I've worked out the story and I'll give it to you for what it's worth. There are some discrepancies in it, but these may be the result either of a lapse of his memory or incorrect recording on my part. Two things I am sure of; that none of the gold seekers who went into the west from the *Rio Xingu* ever returned, and that the *Tierra Prohibita* has not yet been explored. I can add one other; if it ever is explored, it won't be by William Murdock, soldier of fortune.

CHAPTER II

The First Visit to Troyana

THE first part of the narrative was rather disconnected. Ray Willis, which was the name of my charge, was a veteran revolution promoter, specializing in the Spanish-American countries. He had been mixed up in various kinds of skullduggery in most of them and a price was on his head in half the countries south of the Rio Grande. When the World War broke out, he tried to secure a commission in the army, but the State Department vetoed it. However, his country was not above using his specialized knowledge. He became a Special Agent of the State Department. As soon as the need for his services was over, they left him out and

he drifted down to Belem, looking for something to do. That was the situation when Bob Mariston, then a Captain of Infantry, cabled him to come to New Orleans.

Willis was in debt to Mariston for something that had happened in Nicaragua some years before. Besides, Mariston had cabled the price of a ticket, so Willis took the next boat. In New Orleans, Mariston introduced him to Frank Nankivell and George Duncan, both ex-officers of Mariston's regiment. The three of them had resigned and were spoiling for some kind of excitement. Their first proposition to Willis was to lead a revolution which they would finance.

Willis frowned on this. He suggested instead that they do the most foolhardy stunt that ever man has tried—penetrate the *Tierra Prohibita* in search of treasure. They must have been hard up for something to do, for they listened to him and sailed for Belem with that express purpose.

They were fortunate in making the acquaintance of Don Esteban Guzman of Itaituba. But for his aid the venture would have been doomed before it started, for the Indians of the *Rio Tapajos* are no more anxious for sudden death than are those of the *Rio Xingu*. Pedro, Don Esteban's majordomo, claimed to have made a trip into the forbidden land in his youth. After Nankivell rescued him from a boa, he told a wild yarn about white wizards and the eventual death of all who passed the invisible boundary marking their land. He tried to dissuade them from the trip, but when they persisted he offered to accompany them.

"If you go, Señor Frank," he said to Nankivell, "I go with you. My life is forfeit already, and the gods may grant that in dying I may pay my debt."

Despite his gloomy prognostications, the five of them forced their way up a tributary of the *Tapajos* as far as they could by boat and then started overland.

Of course, the Indians soon got on their trail and attacked them. The arrows fell around them pretty thickly, but by some miracle none of them was hit. They made their way inland until they stumbled upon a paved road in the heart of the jungle. They followed this for half a day and came to a standstill, where the road ended at a door set in a rocky hillside.

The door opened when they knocked and admitted them to a sort of a tunnel. When they entered, the door closed behind them and left them in absolute darkness. Before they could turn on their flashlights, the whole tunnel was illuminated. Before them stood a man who must have looked exactly like the fellow I had seen in the jungle. Perhaps it was the same man for all I know.

Nahum, which was the chap's name, greeted them civilly enough and took them on a sort of subway to a wonderful city built in the jungle. Willis raved a lot about Troyana, as it was named. It must have been a wonderful place, judging from his description of it.

The wanderers were hospitably received. After they had been tested, they were declared citizens of the place and all ways were opened to them. They were kept as guests in Nahum's house and were introduced to his granddaughter, Estha, and her cousins, Balkis and Ione. And right there trouble started, as it always does when women get mixed up in anything. Nankivell fell head over heels in love with Estha, and Mariston got to care more than a little about Balkis. Knowing Frank Nankivell as I do, I can readily believe that part of the narra-

tive. In fact, if Willis had said that Frank didn't fall in love with at least one of the girls, I would have known it was a bare-faced lie. I was rather surprised at sober old Bob Mariston, though.

Willis gave me a great deal of information about the government of Troyana. The inhabitants were divided into six classes of degrees, of which the "Black Robes" or "Burden Bearers"—they were called by both names—were virtually slaves. They lived in underground warrens and were cared for like cattle by the higher degrees who lived in palaces. Willis said that the "Black Robes" were descendants of the inhabitants of lost Atlantis, and that the higher degrees were descended from the ancient Trojans who were scattered when the Greeks under Agamemnon sacked Troy. Where he got this information, I have no means of knowing.

Conditions in Troyana were critical when they arrived and they soon got worse. The slaves, who outnumbered all the higher degrees by ten to one, refused to be content with their lot. On the occasion of a great annual festival, "The Adoration of the Golden Calf," he called it, they rose and tried to reverse the form of government, putting themselves on top.

It must have been a first-class scrap in the assembly room where the ceremony was held, especially as some of the men of the higher degrees sided with the slaves, particularly one Amos, who had been a high official in the city government. Amos and his followers captured the whole city, except one central fortress which Zephaniah, the leader of the higher degrees, held with his forces.

The fight developed into a stalemate and the rulers of Troyana had time to take stock, so to speak. It was then that Nahum first discovered the affair between Estha and Nankivell. For reasons of his own, he forbade the match and virtually ordered the strangers from the city. They had come of their own free will and accord and were allowed to depart the same way, although Zephaniah, the Master of the city, warned them.

"You will be reconducted to the place whence you came, and there be reinvested with that of which you have been divested," he said, "but the road to Troyana will then be forever closed to you. Of your own free will you came, and of your own free will you go. Once traveled, the road can never be retraced."

All of them were willing to go except Nankivell and the rest talked him into it. But for the sequel, that part would be hard to believe. Willis was very vague as to their method of leaving the city, but one thing he made very clear. Nankivell obtained permission to carry with him the body of Pedro, their Indian servant, who had bravely given his life for Frank's in the battle in the amphitheatre. They carried it as far as the jungle and then unwrapped it. Imagine the dismay and anxiety of them all, except Nankivell, when they found that they had carried from the city not dead Pedro, but living Estha.

The inhabitants of Troyana have progressed much further along the lines of applied science than have the inhabitants of the outer world. One of their instruments enabled them to see whatever is going on in the world at a distance. It is some combination of radio and television and no apparatus is needed at the sending end to enable them to receive both sounds and images. The instrument has one weakness, it cannot penetrate tin or operate through any paint containing a tin pigment. To guard against observation, the four men carried a cloth im-

pregnated with tin salts in front of Estha as they made their way through the jungle.

At noon the first day out of Troyana, they lay down in the jungle for a *siesta*. Duncan mounted guard. He was tired with the labor of carrying Estha and he fell asleep on post. When he woke, Estha was gone.

Nankivell went crazy and demanded that they return and storm the city, but the rest kept leveler heads. They soon pointed out the folly of any such attempt: Amos and his force of slaves held the lower city and would kill them without mercy. Nor would they meet with a much more cordial reception from Zephaniah, after they had returned against his will, nor from Nahum, whose granddaughter they had kidnapped. As a final argument, Willis pointed out that they had no means of knowing where to look for Estha.

"Nahum may have her," he said, "but it is equally probable that Amos is holding her captive. On the other hand, she may not be in the city at all. The Indians may be holding her in the jungles."

Nankivell assented to the validity of their arguments. He volunteered to keep watch the rest of the night.

"I can't sleep anyway, fellows," he said, "and I might as well keep watch since I'll be awake."

The other three slept through the night. When they woke, Nankivell was gone. He had taken his rifle and two pistols with all their ammunition and started out single-handed to rescue Estha or die in the attempt. The fact that he had taken all of the ammunition was enough to prevent them from following him. Sadly they turned their faces toward home. They reached it after severe hardships and settled down to their old lives often wondering what had happened to Nankivell.

The only clue they ever got was a message they received two years afterwards on a shortwave receiver which Duncan had invented. The message was very fragmentary and indistinct, but they made out the following words:

"Willis, this is Frank Nankivell. I am safe — but need — Troyana. Mariston, this — safe in Troyana. We are well — need cobalt. Bring all you can carry. The Master gives per — The passage that we came out in —"

There the message ended. A week later, Willis and Mariston, loaded with sixty pounds of cobalt, took a boat for Belem to try to again force their way into the mysterious city. Duncan had married in the meantime and the other two would not let him go.

In time they reached the city. How they did so and what they found there is part of the story, but in the main it is the story of Frank Nankivell. Whether it is true or not, I have no way of knowing, but I served a year with Frank Nankivell along the Mexican border, and it is just such a crazy adventure as he would have reveled in. Also, there are the diamonds to explain.

CHAPTER III

Nankivell to the Rescue

GUN on shoulder, Frank Nankivell paced restlessly around the bivouac camp from whence Estha had been stolen. From time to time a sonorous snore came from under the mosquito netting, evidence that Ray Willis was sleeping peacefully. An occasional mutter from Bob Mariston testified that he was also lost

in slumber. Nankivell cast a swift glance at the netting each time he passed it, but the glowing end of a cigarette told him that George Duncan was still awake.

"Say, Frank," came in guarded tones from the netting as he approached it again. Nankivell paused in his restless walking.

"What is it, Dunc?" he asked.

"Come up here where I can talk to you without wakening Ray and Bob."

Nankivell stepped close to the netting and rested his rifle on the ground. In the bright tropical moonlight he could see Duncan sitting up in bed, looking at him.

"Frank," Duncan said softly, "I feel like the devil about this whole affair. It seems to have been my fault all through. If I hadn't sided with Bob, we'd probably be safe in Troyana right now and you'd be with Estha instead of pacing the jungle like a caged lion. I know just how you feel, old man, and I don't blame you. If it were Molly, I'd be in the same condition."

Duncan's words washed out any remaining traces of rancour which might have been in Nankivell's heart.

"Forget it, George," he said quietly. "Bob and you both acted for the best. Nahum would never have given his consent to a marriage between Estha and me. Staying there would have been torture to us both. Leaving was the wisest thing we could have done. If things had gone as we expected, Estha and I would have been as happy in New York as anyone could ask to be."

"That's just the point, Frank," went on Duncan. "After you were bright enough to undo the mischief the rest of us did and get her safely out of the city, I had to go to sleep on guard this afternoon, like a recruit, and let them get her back. I wouldn't blame you a bit if you put a hole through my worthless carcass."

"It wasn't your fault, Dunc," said Nankivell wearily. "If you had gone to sleep it would have been different, but we both know that there's little use trying to fight the strange weapons of Troyana. They sent some kind of rays at you and anyone would have done the same thing. You probably held out longer than I would. I don't blame you, old fellow, you were up against something bigger than a man could fight. Just forget it and go to sleep."

"It's doggone decent of you to talk that way, Frank, but the fact remains that I *did* go to sleep. Now I know you want to go back to Troyana and try to rescue Estha. There's no use in letting Ray and Bob in for what we'll probably run into, so I think the best thing to do is for you and me to take a sneak and try to make the city by morning."

"Could we make our way through the door?"

"We can try. If we can't get through and into the conveyers, I have a pretty fair idea of the direction in which the city lies and we can try it overland."

"You darned fool!" cried Nankivell, his voice choked with tears. "You know there isn't half a chance in a million of winning through, yet you'd give up your life just to try to help me. I ought to kick you clear to the Rio Tapajos for being such an idiot. Go to sleep, old man. Neither I nor any one else blames you for sleeping this afternoon. As Ray pointed out, it is even money that Estha is somewhere in the jungle right now captured by a bunch of the cowan Indian guards and we would be running right away from her if we headed for Troyana. There's nothing we can do and you know it. Go to sleep and let me think things out."

Duncan threw himself on his blankets with a sigh.

"Of course, if that's the way you feel about it, Frank," he said, "I haven't another word to say. I just wanted you to know I was willing to go with you."

"I know it, you old fake," laughed Nankivell through his tears. "It's quite typical of you to offer to go, but I've no mind to sacrifice either of us uselessly. Now go to sleep. I'll call you later if I want a relief."

Duncan rolled over on his blankets and Nankivell resumed his restless pacing around the little camp. Ray Willis' words had been true ones. He had no way of knowing whether Estha had been captured by the cohorts of Amos and was a captive among the Burden Bearers in the lower city, or whether she was now in the hand of Nahum and Zephaniah in the Sanctuary. On the other hand, she might, as Mariston had suggested, have been captured by one of the bands of cowans who patrolled the reaches of the jungle under the command of the Warder of the Outer Ways. If Zephaniah had been able to get word to the Warder, this was a likely solution. He sat down on a fallen *lignum vitae* log to think the matter over.

Suddenly he sat forward with a start. Far away and so faint as to be almost indistinguishable came a murmur of sound. It was not audible sound as the term is usually understood. It seemed to be more a pounding and beating on Nankivell's brain than a sound impinging on the tympani of his ears. It was regular and steady and resembled somewhat the beat of drums, somewhat the sound of galloping hooves. He strained his ears but the sound died away in nothingness.

"I wonder if I imagined that?" he muttered to himself. "It was so faint that I'm not certain about it."

He glanced at the luminous dial of his wrist watch. From it long streamers were rising. Nankivell felt a prickle along his spine as he noticed the strange phenomenon.

"They've got rays of some sort playing on me," he exclaimed. "I wonder whether I had better wake the rest."

His answer came in a renewal of the faint throbbing. This time it seemed louder and nearer than it had been before. Nankivell stopped his ears with his finger tips, but this merely served to accentuate the sound and make it more pronounced.

"The hooves of the Golden Calf," he cried, half aloud. "Death to some poor devil, probably to me. If I wake the others, they may get into it too. I got them into this mess by bringing Estha with me and it's my funeral. I'll slip away from camp so that I can be butchered quietly without disturbing them."

Rifle in hand, he stole softly away. Fifty yards from the tent he paused and looked keenly around. There was nothing to be seen and no sound other than the usual nocturnal noises of the jungle reached him. His watch was throwing off longer and more brilliant streamers of light and the tempo of the drumming increased. Nankivell unlocked the safety of his rifle while his eyes ceaselessly roamed the jungle.

The drumming grew louder until Nankivell felt as though his head would burst under the driving pressure of those blows of sound. He set down his rifle and pressed his hands against his temples for relief. The drumming rose to a crescendo which was torture to the hearer. Then, before Nankivell's astonished gaze, appeared a tiny spark of light.

He raised his rifle tentatively, but held his fire until

the phenomenon should develop. The spot of light grew larger and spread out and grew less tenuous. In the moonlight it seemed to be forming a curtain through which the jungle could not be seen and which the rays of the moon could not penetrate. Whorls and lines of dim light began to appear. They slowly formed themselves into images until a whole scene appeared before him. Made up of lines and spots of light. Nankivell gasped and his grasp tightened on his rifle.

THIE huge amphitheatre of Troyana appeared before him as though he stood in one of the boxes reserved for the three purple-robed Keepers of the Sacred Treasure. On the platform, which occupied the center of one end of the huge hall, stood the grotesque image of the Golden Calf, that horrible monstrosity wrought by the blue-clad Planners, thousands of years ago, to give to the Burden Bearers a visible object of worship. Before it stood an altar, empty now, although the sacred fire still burned on it and from the forehead of the calf glowed that spot of intolerably brilliant light which was used to hypnotize the black-clad slaves into thinking that they saw a veritable human sacrifice instead of the mock sacrifice of dummy. The hall was empty now except for a row of bodies which lay on the dais. Most of them wore the yellow robes of the Craftsmen, the third order of Troyana society, but scattered among them were a number of blue robes, showing where lay bodies of Planners, the ruling class. Here and there a brilliant splash of crimson told of the death of a brother of the rank of Keeper of the Crypt, next to the guardians of the sacred treasure, the highest rank to which a citizen of Troyana could aspire.

A trumpet blew a single long brazen note. From a door in one side of the amphitheater entered a procession. Nankivell gritted his teeth as he recognized the crimson-clad Amos, the renegade Master of the Conclave. Escorting him were a score of black-clad figures carrying torches and the symbols of their debased idol-worship. The procession marched twice around the hall and came to a pause before the altar. Amos stepped in front of his followers and mounted the dais, bowing low before the hideous image. Nankivell could see his lips move, but no sound reached him. Amos rose and stretched out his right arm.

Again came a blast from the unseen trumpet. Through another door came a second procession. In the midst of a hundred Burden Bearers were three figures on which Nankivell's eyes were riveted. One of them wore the blue of a Planner while the other two wore the yellow which marked them as being of the Craftsmen rank. Proudly they marched as if disdaining the touch of the black-clad slaves who crowded around them. The procession came to a halt before the image of the calf. Amos stepped forward.

He spoke for a minute and then stepped up to the Planner. The blue-clad figure looked at the Crimson Master with an air of the utmost disdain on his handsome face. Amos thrust forward his hand which the Planner struck down, at the same time spitting contemptuously on the floor. The motion brought his face into plain view.

"Ezekial!" cried Nankivell as he recognized the Junior Deacon of the Council, as the blue assembly which governed Troyana was called.

An expression of rage distorted Amos' face. He

waved his arms peremptorily. The Burden Bearers grasped the luckless Ezekial and in a moment stretched him on the altar. Amos towered over him for a moment, a long knife in his hand. The knife descended slowly. Nankivell involuntarily looked away. When he glanced back, the Planner's lifeless body was being borne away by two of the slaves.

Amos turned to the two Craftsmen and arrogantly questioned them. Their answer was the same as that given by Ezekial. In an instant they were stretched on the altar for sacrifice. Amos' knife fell twice and two more lifeless bodies were borne away. The faces of the Burden Bearers bore expressions of fiendish glee. Again the unseen trumpet blew a single long note.

Nankivell turned his head to avoid witnessing more scenes of bloodshed, but as he did so the sound of the drumming suddenly became resurgent. He turned back to the picture. A cry of horror burst from his lips as a third procession entered the hall. Six Burden Bearers marched in pairs before the central figure, and six more followed. In the middle of the band was Estha. The column marched up to the altar and opened out to leave Nahum's granddaughter standing alone, face to face with the crimson-clad traitor. Amos took a step forward. The sound suddenly became audible to Nankivell.

"It is known to us, Wearer of the Blue," said Amos, "that you possess certain knowledge which we desire. When Zephaniah usurped my rank and revealed certain of the secrets of the crypt to the outlanders, he sent them away from Troyana for some reason of his own. What were those reasons?"

Estha drew herself up haughtily.

"Ask of your slaves and your minions," she replied. "Judge not all wearers of the blue by your own base self."

Amos' face became suffused with rage.

"You will speak when I so order," he snarled, "else I will give your body to the *Guardians of the Jungle* to tear."

"Thinking you that one born in the blue can be frightened by such childish threats?" asked Estha, scorn in her voice. "Swift death at their hands would be preferable to life with the sin of betrayal on my head."

Amos gave a cry of anger.

"If you will not speak to save yourself," he rasped, "there may be other ways of forcing you. Bring in the Planner, Nankivell!"

The trumpet sounded another note. To his astonishment, Nankivell saw himself march into the hall surrounded by a dozen guards. His face was haggard and he marched as though the fear of death hung heavy on him. When he was almost to the altar he gave a cry of horror and strove to fly. Strong hands grasped him and dragged him back. Whining and shrieking for mercy, he threw himself at Amos' feet.

"Now will you speak, Granddaughter of Nahum, or will you have this thing, I cannot call it man, tortured to death before your eyes?" demanded Amos.

Estha shuddered and hid her face in her hands. Amos stepped forward and raised above his head a long whip with dependant thongs. It whistled through the air and fell on Estha's shoulders, leaving long red stripes on her white flesh. The girl cried out in pain. The whip fell a second time.

"Frank I!" she cried in anguish. "Help me!"

The figure at the altar faced her.

"Speak, Estha and tell him," it cried. "If you don't,

Amos will torture me. If you love me, speak and save me."

Estha looked at the cowering figure in disgust. Suddenly she ran forward and grasped the blond locks which crowned his head. She gave a sudden wrench and the hair came off, disclosing the short black hair of an Atlantean. Estha threw back her head and laughed.

"You overstepped yourself, Amos," she cried. "Had your dummy suffered in silence, I might have been fooled, but my lover is no whining coward. Do with me as you please, but of one thing I warn you, Amos, thrice-accursed renegade and traitor, you have not heard the last of that man you have dared to malign. Already he is on his way to Troyana. Heavy will be his vengeance for every indignity to which I am submitted."

"When hot iron tears your flesh and the claws of the Guardian reach out for you, Granddaughter of Nahum, you may speak in another voice," grated Amos, his face a picture of baffled rage.

The scene suddenly faded from view. Again came the throbbing of drums for an instant and then silence. Nankivell grasped his rifle and shook himself as if waking from a dream. He stood a moment in thought and then stole swiftly back toward the camp where his companions were sleeping. He bent over Mariston's unconscious form. Slowly and with infinite craft he slipped Mariston's automatic from its holster and laid it down. With greater care he detached the holster from the sleeping man's belt and laid it beside the pistol. He removed the extra clips of ammunition from Mariston's belt and then turned his attention to the remaining figures.

It took him fifteen minutes of careful work to collect all of the ammunition from the sleeping figures, but in time he had it all. Mariston's pistol and holster he hung on the left side of his belt, balancing his own pistol, which hung on the right side. The extra clips went into his pockets and he threw the bandoliers of rifle ammunition over his shoulders. As an after-thought, he detached one bandolier of forty rounds and slipped it back under the tent which sheltered the sleeping men.

He drew away from the camp and wound his flashlight. He stood it up on the ground and drew from his pocket a notebook and a stub of pencil. Hurriedly he covered both sides of a sheet of the notebook with writing and tore the sheet out. He slipped it into one of the bandolier pockets so it stood out prominently. With a shrug of his shoulders he slipped his arms through the suspenders of his pack and adjusted it to his body. Flashlight and rifle in hand he stepped noiselessly from the camp and set his face toward the hidden city from which he had fled the day before.

"The boys may be sore when they find I've left them," he mused, "but it's the only thing to do. I haven't a Chinaman's chance really, and I don't want to sacrifice them needlessly. Anyway, one man may slip in where four couldn't. It's about the most foolhardy stunt I ever tried. Amos may be fooling me with a dummy but somehow I don't believe it. She acted the part too well. The expression on his face when she told him I was on my way to Troyana tickles me. It was what he was playing for and yet, I'll swear he looked a little scared. Well, she told him the truth in any event. I'm on my way to the city and there'll be a heavy reckoning for Brother Amos, if I ever get in and draw a bead on his ugly countenance."

CHAPTER IV

In the Labyrinth

DAY was breaking when Frank Nankivell emerged from the tangled jungle and came upon the paved road which led to the entrance to Troyana. Thankful that no arrows had interfered with his progress, he turned to the right and strode along the road. It grew hot as the sun came up, but Nankivell was impervious to fatigue. Before his eyes danced the images he had seen on the screen of fire the night before and in his ears rang Estha's cry for help.

For an hour and a half he forged along, expecting every minute to hear the fatal *whish*, which marked the flight of the arrows of Troyana's cowan guards. No such incident delayed him and he came at length to a turn in the road, beyond which lay the door barring the way to the hidden city.

He stepped off the road into the jungle and stole cautiously forward. Parting the leafy screen before him, he peered out. The door was closed and there was no indication that it was guarded. He crept closer, examining with scrupulous care the jungle on all sides. Twenty yards from the door he paused.

"Now what shall I do?" he reflected. "Of course I had to expect it would be closed. I suppose the only thing to do is to go up and knock for admission. Knock and the way shall be opened unto you," as Nahum used to say."

He stepped boldly on the road and advanced to the massive copper-bound mahogany door. Raising the butt of his rifle, he struck three sharp blows on the mahogany and waited. There was no response.

"No one home, I guess," he said whimsically. "Too bad to come so far and find no one in. Well, I'll try again."

His rifle butt battered at the unyielding wood. The dull thud of the blows echoed through the jungle but there was no response. He examined the door critically, hoping to find a crack at the top where he could insert his rifle and use it as a lever to move the mass downward, but it was tightly closed. He carefully searched the rocks on either side of the door and the door itself, seeking one of the hidden catches by which many of the doors of Troyana could be manipulated from the outside by one instructed in their mysteries, but nothing of the sort rewarded his search.

"Well, if they won't let me travel by this route, I'll have to use Dunc's alternative and make it overland," he said aloud. "It's going to be the devil and all of a trip, even if I were sure of the exact direction, which I am not by sixty degrees. I think the city lies northwest. I hope they don't keep any of those horrible lizards they call *Guardians of the Jungle* around this neck of the woods."

Drawing a small compass from his pocket, Nankivell took his bearings. Apparently his road led directly over the ridge before him. He pocketed his compass, slung his rifle over his back, and started to climb. He had gone only a few yards when a slight sound behind him made him pause.

He looked around but there was nothing in sight. Some instinct warned him to be cautious and he dropped behind a prickly pear growing on the rock. It was well that he did so. Hardly had he taken cover before two men made their appearance, coming from the interior

of the hill. Both of them wore the black robes of Burden Bearers and Nankivell knew that he would have met with small mercy at their hands. They paused and one of them called out in a coarse voice. The language he used was Atlantean, a tongue which Nankivell, who had a good knowledge of the archaic Hebrew of the ruling classes of Troyana, could not understand. From the interior of the hill came four more Burden Bearers and two of the cowan guards of Troyana.

The leader of the party spoke to one of the Indians. The cowan replied and pointed along the road and then swung his hand off to the left.

"I believe the beggar is trying to map out my course to him," thought Nankivell. "Amos has sent this gang out to intercept me and capture me, but he didn't reckon on me traveling during the night. I think I've won the first trick."

The Burden Bearer argued with the Indian for a few moments before he nodded in agreement. He addressed a few gruff words to his companions. They formed in a column of two and started down the road. The cowan hesitated and pointed back, arguing with the black-clad leader of the expedition. The Atlantean shook his head and spoke preemptorily. The Indian shrugged his shoulders and set off along the road, the Burden Bearers following him.

As soon as they had disappeared around the bend in the road, Nankivell sprang to his feet and raced down the slope. As his feet touched the road he turned toward the door and stifled a whoop of joy with difficulty. It stood wide open before him.

"I suppose the beggar knew that he couldn't open it from this side," he chuckled, "and he wasn't willing to trust his compatriots to open it to let him in. Amos' great point of strength doesn't seem to be the confidence his followers have in him. Well, here goes for the city."

He wound his flashlight to its fullest extent. He started to unsling his rifle but thought better of it. He drew one of the automatic pistols which he carried at his belt. With the gun ready in his hand, he stepped over the threshold and entered the tunnel which gaped open before him. As he passed the doorway he turned apprehensively, expecting to see the twenty-foot-thick mahogany-faced stone slab rise in its grooves and shut him off from the outside world as it had done on the occasion of his first visit to the city, but the door did not move. Evidently no one had been left on guard in the tunnel.

"Darned careless of Amos," he chuckled. "Score another trick for Nankivell. Now if I can just locate the conveyer door and get it open."

He stepped along the tunnel for seventy steps and then faced the left wall. A sentence in melodious Hebrew came from his lips and he watched the wall eagerly. Nothing happened. With an exclamation of disappointment, he moved a few feet further along the wall and repeated the sentence. There was still no response and he swore softly. Back and forth along the wall he went, repeating the Hebrew sentence. Suddenly he smote his forehead.

"Dunce!" he exclaimed. "That door was set so that only a Keeper of the Crypt could open it, and Amos had to change that. It is either set to open on an Atlantean phrase or by a lever. The latter is more probable."

He went over the wall of the tunnel inch by inch

searching for a protuberance which would open the way for him. He found nothing until he turned his attention to the further wall. There his searching fingers found a slight depression. He inserted his finger and pressed down and sideways. Something gave with a sharp click. With a gasp he turned toward the entrance. The door was rising swiftly. In another instant he was in pitch darkness.

"The devil!" he cried as he felt in his pocket for his light. "I found the wrong button."

A beam of light from his flash stabbed the darkness and he gave a cry of joy. In the opposite wall a stone had sunk into the floor exposing a stone room some twenty feet square, fitted with upholstered chairs, bolted to the floor.

"Me lud, the carriage waits," he cried gaily as he entered the conveyer. "The same lever which closes the door opens the conveyer. I suppose Amos' new friends haven't brains enough to comprehend a complicated thing like two separate controls. Now to find how the thing shifts."

He advanced to the control board and studied it. On it were two levers he had never seen before. Experimentally he touched one and the car was flooded with light.

"That's better," he said. "I'm getting the hang of things."

He touched the second new button and the door slab slid noiselessly into place. He seated himself in the operator's chair and grasped the speed control lever.

So gently and noiselessly did the conveyer move that he would have found difficulty in believing that the car was accelerating, were it not for the slight feeling of nausea and the pressure which held him fast against the chair. The indicator crept slowly around the dial until it registered a speed of two hundred miles per hour.

"Amos is keeping up his air pressure all right," he said as he set the controls to bring him to an automatic stop at the end of the tunnel. The brakes worked sharply and he was almost thrown forward as the car stopped.

"We have arrived," said Nankivell. "Now to open things up."

He turned the light control and the car was in darkness. His hand sought the wall where he knew a lever would open the door.

"I hope the way is clear," he muttered, his hand on the lever. "Well, the only way to find out is to look."

He pulled sharply down on the lever. One side of the car dropped silently and swiftly to the floor level. A long empty passage-way, brilliantly lighted by overhead bulbs, stretched before him. He slipped his electric torch into his pocket and unslung the rifle from his back. Making sure that the weapon was ready for instant action, he stepped forth from the conveyer into the forbidden precincts of the city.

OUTSIDE the car he paused irresolutely for an instant. He was in an unfamiliar corridor and there was nothing to tell him which way he should turn. With a whimsical air he took a coin from his pocket and spun it into the air. It fell with the face-side up and he pocketed it and turned to the left without another thought. He made no attempt to close the conveyer door behind him.

His feet made no sound on the rubber paved floor of the corridor. As silently as a ghost he made his way forward. The corridor branched in a hundred yards

and he paused again, irresolute. Shrugging his shoulders, he turned again to the left and went forward. A sudden shout behind him made him swing around, his rifle at the ready. Coming down the corridor into which he had turned were a half-dozen black-clad figures.

As he turned, they raised a shout and charged. Nankivell snapped the safety off his rifle and brought it to his shoulder.

"Halt!" he shouted.

The oncoming Burden Bearers paused for an instant. One of them fumbled under his black robe and drew forth a short thick tube. Nankivell knew it for one of the deadly flashtubes of Troyana. He threw his rifle to his shoulder and fired before the Atlantean had time to level the tube. At that short range the jacketed bullet of the Springfield tore through the Burden Bearer and another who stood behind him. Both of them fell to the ground. Nankivell reloaded his weapon and waited. The rest of the group hesitated.

"Beat it!" said Nankivell tersely.

They stared at him uncomprehendingly and he strove to recollect the Hebrew equivalent of his phrase.

"Go ye on your ways!" he said at last. No trace of comprehension showed on the stolid faces before him.

"Oh, thunder!" he cried. "The brutes don't savvy anything but their own brand of cackling and I can't talk it. I'll try sign language."

He lowered his rifle and raised his right hand impressively upward. Slowly and in an sonorous a voice as he could command, he gravely recited the words of "Mary had a little lamb" to them. When he had finished, he extended his hand and pointed up the corridor from which they had come. An excited babble of speech broke out. Presently they made up their minds and came forward in a body at a run. Nankivell groaned, threw up his rifle and fired twice in rapid succession.

"It's just like shooting fish in a barrel," he muttered as he observed the effect of his fire. Two more of the Atlanteans were on the ground. The remaining two paused again.

"Run along now like good children," he cried, raising his rifle threateningly.

He moved a step forward. The remaining Atlanteans turned and fled up the corridor with cries of alarm. Nankivell looked glumly at the four prostrate figures before him.

"Sorry I had to do it, boys," he said. "It's hardly your fault, you're only the product of a system, all hopped up over false promises that Amos has held out to you. I'd like to try to patch you up, but something tells me I had better toddle along while I'm able to go under my own power."

Shoving a fresh clip of cartridges into his rifle, he turned and ran up the corridor in the opposite direction to that taken by the survivors of the band who had attacked him. In a few feet the corridor branched off into two directions. Without thought he turned down the left one. Again the corridor branched and he turned to the right to avoid running in a circle. Again and again he changed direction, sometimes going to the left and sometimes to the right. Presently he paused and listened. He could hear nothing for a time but the thumping of his own heart. Then in the distance he heard a shout. It was answered from a point on his left. Evidently the Atlanteans were scattered in bunches looking for him.

With a groan, he continued down the passage. It

branched again and he paused. The path to the left was brilliantly lighted while the one to the right was in total darkness. He started down the lighted corridor, but a shout made him pause. Behind him were three black-clad figures, flashtubes in hand. They were too far away to use their electric weapons but Nankivell knew that they could outrun him, burdened as he was with equipment and ammunition. He turned to the right and plunged into the darkness before him.

He ran for fifty yards and then dropped to one knee, his rifle at his shoulder.

"I'll bust them as soon as they show against the light," he muttered, lining up his sights. "It's a dirty trick, but I can't be squeamish."

He waited for his pursuers to appear but none of them were outlined on the lighted wall before him. Suddenly he gave a cry of alarm. The patch of light which marked the end of the corridor he was in was growing smaller. He realized that a door was rising to shut him off from the way he had come. In another moment the thin threads of light which had filtered through the gloom were gone and he was in utter darkness.

"By thunder, I know where I am" he cried as a sudden gleam of recollection shot through his mind. "There's only one place like this in Troyana. I'm in the labyrinth under the amphitheater. The sanctuary is directly over head. I've had better luck than I realized. All I've got to do is find an elevator and go up. Once I'm in one, I can shoot right past the levels that Amos holds and make the sanctuary. If Estha is there, everything's jake. If she isn't, I can tell Nahum that Amos has her and we'll go after her in force."

He drew his flashlight and wound it. The beam of light stabbed the darkness and he started slowly down the corridor, his eyes glued on the wall, looking for the telltale cracks which would show the presence of an elevator in the thickness of the wall.

The path turned and twisted interminably. In ten minutes Nankivell admitted that he was thoroughly lost and had no idea of whether he was moving in a circle or a straight line. No signs of cracks rewarded his search. His heart fell, for he knew that elevators rising from the unused labyrinth which underlay the central portion of the city, would be few and hard to find.

After two hours of fruitless search he shut off his light and sank on the floor to rest. As his eyes grew accustomed to the darkness, he could see a faint gleam of light far ahead. Not daring to turn on his flash, he rose and moved slowly toward it.

The corridor opened into another. A hundred yards ahead of him was the end of the darkness. He paused, fearing a trap, but he had little taste for returning to the pitchy darkness behind him. With his rifle ready, he stole forward.

There was no one in the lighted corridor. Choosing at random, he turned to his right. A hundred yards further he passed another corridor leading into the labyrinth. He came to a cross-corridor and peered cautiously around the corners in both directions. As he looked to the left, he gave a cry of joy. Fifty yards from where he was, a gap yawned in the wall. It was either an elevator or a conveyer. There was no one in sight. He raced down the corridor and leaped into the gap. His heart jumped, for there were no seats. He had found the elevator he sought.

He turned to the control panel but it had only a starting lever. He was momentarily at a loss. He stepped back

into the corridor, searching for a lever on the wall. As he did, a shout smote his ears. Down the corridor toward him raced two Atlanteans.

He leaped back into the elevator and cast a last despairing glance around for a way to close the door. Nothing could be seen. With a groan, he wrenched at the starting lever. To his astonishment, the car started to move. Before the pursuing Burden Bearers could reach it, it had moved far enough so that nothing but stone showed on all sides.

"Sorry it went down," he said, "but I'll drop a piece so I can get up speed to shoot past that gap."

He grasped the starting lever and swung it over to reverse the motion of the car. A cry of alarm burst from his lips. Instead of rising toward the sanctuary, the car fell with sickening speed into the bowels of the earth. No matter how he moved the lever, it did not affect the motion. Once started, it was beyond his control.

He gave over the struggle at last. The car was falling rapidly and he knew that he must be hundreds of feet below the level at which he had entered it.

"I hope it has an automatic stop," he reflected audibly. "If it hasn't I'm going to be in an awful mess when it lands."

He tried again to swing the control lever, but the car did not respond to it. He gave it over at last and resigned himself to his enforced journey. Uncontrolled, the car plunged deeper into the earth.

CHAPTER V

The Sleepers

THE downward velocity of the elevator decreased automatically. Presently the car came to a complete stop. Nankivell stared at the stone walls before him. He was against the blankness of enigma, for the walls bore no levers to open a door into the interior of the earth. With his flashlight he went over them inch by inch without result. He racked his brains for the Hebrew words and phrases used to open the door of the elevators and conveyors of Troyana and tried all of them he could recall, varying the pitch of his voice, but without result. With a sudden thought he turned to the starting lever.

The lever gave readily to his touch. He swung it over into the reverse position but the car failed to move. This way and that he swung the lever without result until, with a petulant exclamation, he jerked it toward him. As he did so, a draught of cold air, faintly tinged with a musky odor, struck him. He whirled about. A section of the wall behind him had slid noiselessly down.

Confronted by a wall of Stygian darkness, he hastily wound his flashlight. The strong beam stabbed through the darkness revealing a long, low corridor, eight feet in width and seven feet high, opening before him. The walls were damp and a faint drip of water from the roof spoke of the presence of subterranean water nearby.

The smell of musk which he had noticed seemed to be getting stronger. It was hardly musk, but rather a faint reptilian odor. It reminded Nankivell of a rattlesnake den which he had unearthed in Texas years before. He strained his ears, but no sound came from the darkness before him.

"I'll gain nothing by staying here," he reflected audibly. "I never heard of this place while I was in Troy-

ana and I thought I had learned all there was to know. Evidently there are secrets which even the members of the cryptic degree aren't in on. Well, I can't move the elevator back up, so I might as well go on. It's hardly likely that this is the only entrance to this place. Possibly I can find another way to the sanctuary, or else to Amos' headquarters."

He slung his rifle over his back and drew his automatic pistol. With the weapon in one hand and his light in the other, he left the elevator and stepped out along the corridor, whose depths the pocket light penetrated only for a distance of about fifty yards.

The damp, dark way led straight ahead for two hundred yards before it turned sharply to the left. He followed its windings until it branched out into three paths. He examined the walls carefully with his light. High up on the wall were carved curious symbols of a type he had never seen before. Each of the three paths was marked with the same symbol.

"Apparently it doesn't make much difference which way you go," he said. "According to the sign posts, all roads lead to Rome."

He took the middle path at random only to meet with an intersecting corridor in fifty yards. Each of the walls bore the same symbol. He turned back to retrace his steps, but ran into a branch corridor which he had not noticed on the outward trip. He balanced the chances thoughtfully and then kept on the main line. It branched out into four paths within a hundred yards. He was forced to acknowledge to himself that he was thoroughly lost.

"It's a good thing I have a generator light instead of one using batteries," he exclaimed. "They wouldn't last long on this steady burning, and I'm liable to need a light for some time. The only thing to do is to set a compass course and follow it as closely as I can through this maze. If I don't, I'll find myself walking in circles."

His compass told him that he was facing north and he chose that as his direction of travel. The corridors turned, twisted, and branched interminably, but with the aid of the compass he managed to keep going in approximately the same direction.

His watch showed him that he had been walking for a little over an hour when he noticed that the darkness was not as intense as it had been. The tunnel had widened out until it was of sizable dimensions. Experimentally, he snapped off his light. In the sudden gloom he was unable for a moment to see anything, but as his pupils expanded he found himself standing in the midst of a dim, hazy glow, about as intense as starlight on a dull night. The light seemed to come from no definite point but to permeate the entire atmosphere. Tiny motes of phosphorescence floated in the air, but when he rubbed his eyes, they disappeared, leaving only the dim glow which came from no recognizable source. A faint sound behind him made him whirl suddenly.

He snapped on his light. For an instant the sudden light blinded him. He let his gaze follow the beam down the corridor. A vague formless mass seemed to be just beyond the range of the light. The skin on the back of his neck tightened as he realized that the musky odor had suddenly become stronger.

Pistol in hand, he advanced slowly toward the mass. It retreated before him, but the odor of rattlesnakes came in a thick wave which nauseated him. Terror held

him motionless for an instant. He raised his pistol and sighted deliberately down the corridor. His finger tightened on the trigger but in time he remembered the warning words spoken by George Duncan in the jungle when the hideous *Guardians* were surrounding them.

"They haven't any nervous system to speak of," Duncan had said, "and a bullet in the heart wouldn't stop them. Their brains are very tiny and even a crack shot wouldn't be likely to find them. Don't shoot, except as a last resort."

It was highly probable that the monstrosity which Nankivell instinctively felt was confronting him was of the same type as the *Guardian of the Jungle*. He lowered his pistol and thought. He was tempted to risk a shot into the air in the hope that the noise, confined and intensified as it would be by the corridor, would scare the intruder, but caution prevailed. He nervously wound his light to the fullest extent and began to retreat, keeping his face toward the menacing bulk which he could dimly distinguish at the end of the lighted area. As he drew back, the bulk came closer. Occasionally a slight scuffling sound reached his straining ears.

"This will never do," he exclaimed nervously. "If I retreat the thing will follow me until it gets up courage to charge and then it's just too bad. Besides, another one may come on me from the rear. The best thing to do is to face the music and try to bluff it."

HE ceased his retreat and stood motionless. The bulk also stopped its forward movement, but Nankivell's heart sank as he realized that it was nearer than it had been when he had started his retreat. Summoning his courage, he made a tentative step forward. The thing promptly retreated, keeping just far enough away to make its outline indistinguishable.

"Here goes!" cried Nankivell.

He rewound his light to make sure that it was throwing a beam of maximum intensity. With a shout he charged forward. For a moment the thing awaited his attack and the outline of an enormous head swam into view, huge toothless jaws gaping open and a tongue of deadly whiteness licking in and out. The thing could not stand the light. As Nankivell approached, it retreated almost noiselessly. Encouraged by its retreat, Nankivell put forth his best speed and raced toward it. The bulk suddenly disappeared.

Nankivell paused. It was probable that it had backed into an intersecting corridor. If he raced forward he might run into it at such close range that it could grasp him before he could direct the protecting ray of light on it. He stood his ground for a moment and then, slowly, a step at a time, he walked backwards. The bulk did not reappear. He retreated for twenty steps and then turned and ran headlong down the corridor away from the formless menace behind him.

He kept up his headlong pace for a few yards and then suddenly stopped. He threw his ray of light back along the path he had traveled and a sigh of relief rose to his lips as he saw nothing. The horrible stench which had almost choked him was much less noticeable. With an exclamation of satisfaction, he turned his back on the menace and walked on down the corridor.

As he progressed, he found the dim light growing more intense. He turned off his light momentarily and found that he could see his hand before his face. He thrust his light into his pocket and made his way cau-

tiously forward, pausing now and then to sniff the air and listen. Evidently he had left the underground dweller far behind him.

The further he went, the brighter became the light. It seemed to emanate from the walls and roof in a dim glow which made the path underfoot dimly visible. The path sloped upward and the walls became drier as he went along. The corridor turned and twisted but it did not branch and there were few cross roads.

The path made a right-angled turn and Nankivell paused in amazement. Before him was a huge cavern, well lighted by the phosphorescent glow from the walls. It was fully a hundred yards wide while it stretched out before him for fully thrice that distance. The roof rose in a vaulted arch to a height of sixty feet. It was not the dimensions of the cavern which struck Nankivell dumb with astonishment; it was the objects ranged in orderly rows down the length of the hall which made him rub his eyes and wonder whether he was awake.

The objects were cylinders of a transparent substance, some thirty inches in diameter and seven feet tall, standing on end. In each cylinder, its every detail showing through the crystalline walls, was a human form. Nankivell approached on tiptoe as though fearing to arouse the sleepers.

He paused at the first one. In it was the figure of a man of middle age, tall and symmetrically formed, although the limbs were heavy and rather coarse. The skin was a dusky olive in tinge and the curling hair which hung in luxurious profusion from the head and which sprang from the face in a heavy beard, was jet-black in hue. The eyes were closed and there was not the slightest trace of color in the lips or eyelids. The whole face, under the dusky olive tint, seemed livid and lifeless.

Save for a crimson silk cloak thrown over one shoulder and heavy leather harness thickly encrusted with gold and studded with gems, the figure was naked. It stood in an upright position, stayed by silvery metal braces which ran from bands which encircled the inside of the cylinder. Inside were three indicator dials, the needles of which registered near the middle of the scale. In the bottom of each cylinder was a thick layer of a white crystalline substance, looking like coarse salt. On the top of each cylinder was a knob of metal.

Nankivell studied the cylinders closely. In the substance, a foot from the top he could detect shadows. Careful study told him that the almost invisible marks were caused by threads cut in the walls. He surmised that the tops of the cylinders were screwed to the bodies. He extended his hand tentatively and touched the silvery knob on top. He drew his hand back with a sudden exclamation. The knob was icy cold.

He passed down the line, examining the cylinders which stood in orderly rows on either side of him. Each contained a form, some male and some female. On each was a short cloak, varying in hue, and gem-studded leather harness. As he walked along the line, the harness on the figures grew increasingly rich, while the dusky olive of the complexions grew progressively lighter. At the end of the hall he found a dais on which were standing eleven cylinders. He walked up the three steps which separated it from the general level and peered at the occupants.

The central cylinder of the eleven was occupied by a

bearded figure of gargantuan proportions. Nankivell estimated his height as being at least six feet, ten inches, and he was broad and heavy in proportion. His short cloak was a deep purple and his harness was so covered with flashing gems that hardly a trace of either leather or metal could be seen. On his head was a circlet of gold, encrusted with gems. Nankivell gasped as his eye took in the huge stone which ornamented the center of the band. It was a cut diamond fully as large as a hen's egg.

The two cylinders on either side of the central one were occupied by female forms of great beauty. Their

Again the long white tongue licked out and came within a few inches of reaching him. With a cry of horror he raised his pistol and fired pointblank at the horrible face before him.



short cloaks did nothing to hide their loveliness and the slight harness emphasized rather than concealed the perfection of their figures. Nankivell drew in his breath as he looked at them. Despite the blackness of their hair, they gave him the impression of being blondes, so ashy white were their flawless skins. The other eight cylinders were occupied by children of various ages, from a boy of about six to a young girl just emerging into the voluptuous curve of young womanhood.

"This must be the royal family," he said to himself. "It is a wonderful job of embalming; one would almost think they were still alive. This must be a burial ground of Troyana in ages long past. These people haven't the hooked noses that Nahum and the others have, and the costume isn't right, but I can't think what else it can be. Surely there isn't another buried civilization here in the *Tierra Prohibitiva*."

He reached up and grasped the knob surmounting the central cylinder. It was eccentric enough to suggest that it had been used with a lever to screw down the top. He gripped it firmly and strove to break the seal which had been formed. He twisted with his full strength, first to the right, and then to the left, but without effect. The ancient artisan who had formed the cylinder had sealed it proof against his meddling. Still curious, he drew his pistol and rapped with the butt sharply against the cylinder wall. It gave forth a clear ringing sound as though it were a bell, but the weapon rebounded without marring the polished surface. He struck again, putting more force in the blow.

Again the cylinder gave forth a bell-like note, but its surface was not marred. He smote with all of his force on the transparent wall. The blow rebounded harmlessly but the bell-note was deafening.

"That stuff is as hard as a diamond," he cried. "I wonder if a bullet will scratch it."

He cocked his pistol and pointed it at the cylinder. As he was about to press the trigger, he noticed that he was aiming straight at the chest of the bearded giant. With a muttered apology he shifted his aim and fired. The sound of the shot was drowned in a chorus of deep-toned bells. Nankivell was puzzled for a moment, for the tones seemed to come not only from the cylinder before him, but also from far down the hall. A moment of reflection gave him the answer.

"My bullet glanced off and ricocheted down the hall. Every one it hit sounded off. The stuff is hard, all right. The bullet didn't mark it."

HE walked around the cylinder and strove again to loosen the top, but to no avail. Idly he started to count the cylinders, but a moment of reflection showed him the folly of such an attempt. From the size of the cavern, he estimated that there must be several thousands of the bodies in it. He strove to open several more, but his efforts were fruitless. Shrugging his shoulders, he consulted his compass and left the hall by a corridor leading north from the end of the cavern opposite to the spot where he had entered it.

The path led down again and soon he found the light failing. The walls were again becoming damp. Before he had gone more than half a mile, he found it necessary to turn on his flashlight in order to see the path before him. He plodded along steadily until the pangs of awakening hunger made him pause. He consulted his watch and gave an exclamation of surprise. Sixteen hours had passed since he had left his companions, for the watch registered eight o'clock. He held it to his ear and found that it was still ticking regularly.

"Time has passed rapidly," he exclaimed. "I thought it was about noon. I've been through a lot today. I might as well eat something."

His haversack contained a plentiful supply of the marvelous concentrated foods of Troyana, and a few minutes sufficed to satisfy the pangs of his hunger. As they passed, a feeling of lassitude came over him and he felt an uncontrollable impulse to sleep. He fought it for a moment, but it was too strong. With a sigh he unbuckled his haversack and laid it and his rifle on the ground. He placed one of his pistols close at hand on the floor and left the other in its holster. As a final measure, he wound his light to the fullest extent, shut it off, and thrust it into his belt where it would be ready to his hand when he awoke. He threw himself down on

the ground and allowed his tired muscles to relax. In a moment he was fast asleep.

He awoke with a start and a feeling that he was smothering. He sat up with a yawn and fumbled at his belt for his light. As he did so there was a faint rustle near him and a cold, moist, sticky thing brushed against him knocking him back. His hair rose in horror as he realized that the choking sensation was caused by an almost overpowering wave of the reptilian reek he had noticed before in the underground passages. His hand found the light and he snapped it on. As he saw the creature it revealed he sprang to his feet with a cry of horror.

Before him was a huge misshapen head with eyes as large as dinner plates, glittering a murky red in the beam of the light. Gaping, toothless jaws opened a yard wide before him while a horrible white tongue licked in and out, saliva dripping from it. The thing backed a few feet with a hopping motion and he saw what it was. The head was attached almost without neck to a warty, grotesque body, resting on two short forelegs armed with long vicious claws. His light flashed back along the body and he saw it to be a caricature of a toad, a huge, repellent, grotesque toad. Its body was a dull brown with white, leprous patches showing at irregular intervals.

Again the long white tongue licked out and came within a few inches of reaching him. With a cry of horror he raised his pistol and fired pointblank at the horrible face before him.

The toad retreated before the flash and roar of the gun. Its body started to swell. Larger and larger it grew until it entirely blocked the passage. The tongue licked in and out and then a pouch under the huge chin began to swell. The toad opened its mouth and a thick viscous liquid with a nauseous reptilian stench poured out. Nankivell threw himself to one side and the fetid discharge passed by him. The toad twitched its head and the pouch started to swell again. Nankivell raised his pistol and fired shot after shot into that repellent face.

Before the hail of bullets, the toad retreated. Nankivell wound his light and slipped a fresh clip of cartridges into his pistol. The toad continued its retreat. "I've got to charge him," muttered Nankivell. "If I back down, my name is Dennis, sure enough!"

Still keeping his eyes on the travesty of nature before him, he stooped and retrieved his other pistol and thrust it into its holster. By dint of groping, he found the empty magazine and thrust it into his pocket. His rifle he was able to sling over his shoulder, but it was impossible to slip on his haversack without laying down his light, a movement which he feared would be fatal. He threw it up on one shoulder as best he could. Light in one hand and ready pistol in the other, he advanced down the corridor.

The toad retreated before him. Gradually he increased his speed from a walk to a trot and from a trot to a shambling run. Twice the toad stopped and seemed about to dispute the passage, but a shot from the pistol drove it back. For a quarter of a mile he drove his opponent before him. Another corridor intersected the one they were in. As Nankivell passed the end of it, a thick sticky object caught him and whirled him off his feet. He swung his light around and found himself prone with another of the horrible monsters glowering over him. He raised his pistol but held his fire. The

second toad blinked its eyes at the light and slowly retreated. Nankivell started after it, but a rustling sound from behind made him whirl and shoot his light back along the way he had come. Behind him, the first toad, recognizable by the wounds in its horrible face, was following, its livid tongue licking out toward him.

A sound from behind made him turn again. The second toad had taken advantage of the momentary absence of light to approach closer. He shouted and made a step forward, only to find that the monster in his rear had closed in on him. For a moment he whirled his light rapidly from one to the other, trying to keep them both at bay, but slowly they crept nearer to him. The long white tongues were licking eagerly at him from both directions. He put his back to the wall and swung his light from side to side. As the beam of light swept the opposite wall, he suddenly became aware of a gap in the solid rock. Instinctively he fired his pistol, first at one of the attackers and then at the other. They gave back momentarily. Nankivell dashed across the corridor and plunged into the hole. He stopped with a crash as he ran into unyielding rock. He turned and gave a cry of joy as his light swept the cavity in which he found himself. He had stumbled into an elevator and before him was a control lever.

His hand sought the control. As he did so, a reeking stench filled the narrow confines of the car and the sticky tongue of one of the reptiles touched him. He whirled his light toward the entrance and dropped his gun into its holster. While his left hand kept the light playing over the entrance, his right hand fumbled with the starting lever. Suddenly it gave and he felt himself crushed to the floor. The elevator was rising with terrific speed.

He sought to control it, but like the one by which he had descended into the bowels of the earth, it was automatic in its action. The control lever was frozen in position. After a futile attempt he ceased to tug at it and waited patiently the outcome of his upward rush.

CHAPTER VI

Gedaliah Attacks

THE elevator came to a stop. On the wall, Nankivell saw a typical control lever for opening a door from the cage. He paused with his hand on it.

"I wish I had an X-ray flashlight," he reflected. "It would come in mighty handy. Well, nothing gained by delay. Here goes nothing!"

He threw the lever over. Slowly and with a grating noise as though it had been unused for many years, the block of stone rose. Nankivell stared in surprise. Instead of the lighted corridor he had expected, there was only blank darkness.

"I thought I knew every passage in the upper city," he said. "This must be another strange part."

He pressed the button of his flashlight. The beam showed him, not a spacious corridor, but a narrow low tunnel leading from the cage. He gave a gasp of surprise as he saw that the tunnel was walled with masonry instead of being hewn from living rock as were the passages of the hidden city. He hesitated for an instant and then, light in hand, started forward.

He followed the tunnel for a hundred yards before it turned sharply to the right. There was no choice of paths, so he went on. The tunnel turned twice more

before it ended in a flight of stone steps. They ran to the top of the tunnel and stopped.

He started up. At the third step his head struck the roof. By crouching he climbed two more. His light showed him, set in the masonry of the roof, a trap door. Beside it was a lever which evidently swung it open. Without hesitation, Nankivell grasped the lever and swung his weight on it.

The trap door, like the door of the elevator, had evidently not been used for years; perhaps for ages. It gave slightly with a groaning, creaking sound. He rested for a moment and again applied his weight. The door raised slowly, letting in daylight. Nankivell ran up the steps and emerged in a small stone room. He jumped back in alarm. Before him were five of the cowards of Troyana, silently menacing him with their poisoned spears. He realized that he had entered one of the guard huts set around the cultivated fields of the city.

He dropped his torch and thrust his pistol into its holster. With free hands, he placed himself in position and made the sign of peace which Zephaniah had taught him before he left the city. The spears were instantly lowered.

The leader of the cowards stepped forward. He raised his hand, palm outward, and spoke in the Indian tongue.

"Sorry, old bean, I don't savvy your lingo," said Nankivell nervously. "If Ray Willis was here, he'd jabber with you. I'm a friend, *amigo sabe?*"

The Indian looked puzzled and repeated his question. Framing his words carefully, Nankivell spoke in the Hebrew of Troyana. The Indian's expression did not change.

"It's no use," said Nankivell. "We can't seem to get together. I'm a friend, pal, brother, your boss—oh, the devil! Get someone who can talk a language I can understand!"

He waved his hand peremptorily and pointed toward the door. The Indian watched his gesture, but made no sign of comprehension. Nankivell racked his brain for a method of making his captors understand. Suddenly there was a dramatic interruption. From outside the guard hut came a sound. It was a scream, yet not a scream. It started on a low note, but rose rapidly to a shrill shriek and ended in a bubbling grunt as though the throat of the screamer had been cut. Nankivell felt shivers run up his spine. It was the hunting cry of the dread *Guardian of the Jungle*.

Hardy had the cry ended than it was repeated on another side. Before it rose to a climax, another took it up and then another until the room was filled with the horrible screaming. The Indian leader was unimpressed by the horrible clamor. Nankivell instinctively unslung his rifle. At the hostile act the spears of the cowards flashed up. Nankivell promptly lowered his gun.

"Can't you find someone to talk to me?" he asked plaintively. "I don't want to go back the way I came. For the love of mud, get someone else!"

Inspiration flashed over him. He dropped his rifle and assumed a commanding air.

"Gedaliah!" he said slowly and clearly. "Send for Gedaliah!"

The name of the Warden of the Outer Ways had a marked effect. The spears were lowered at once and the Indians drew together in conference. Their leader turned to Nankivell and intimated by signs that he should remain motionless. One of the Indians left the room, evidently bearing a message.

Nankivell waited with what patience he could muster for perhaps five minutes. Suddenly the cowans fell on their knees and bowed their faces to the ground. Through the door came a commanding figure. It was a stately grey-haired man, attired in a blue-bordered robe. On his breast glittered a silver jewel. Nankivell faced him with joy in his heart.

"Greetings, Brother Gedaliah," he said in Hebrew. "You're just in time."

He extended his hand which the Warder took. A single pressure told the tale, but Gedaliah looked at him with cold suspicion.

"What do you here?" he demanded.

Nankivell started to explain, but Gedaliah interrupted him.

"Did you leave the city with Brothers Mariston, Duncan and Willis?"

"Yes, I did. Where are they?"

"Safe. Did not the Master forbid your return as he did theirs?"

"Yes, he did, but——"

"And you know that disobedience merits but one reward?"

"Yes, death."

"Then why should I not put you to death?"

"Maybe you should, but let me tell my story first. If you'll help me get Estha out of Amos' hands, you can do as you please."

Hourly he told Gedaliah the story of their flight from Troyana and how they carried Estha with them. Gedaliah's face grew stern and he gripped the short black tube he held in his hand. Nankivell told of Estha's recapture and of the vision he had seen. Last he told of his desertion of his friends and his attempts to win his way back into the city. When he had finished, Gedaliah bowed his head in thought.

"You abused the hospitality and trust reposed in you and stole away the granddaughter of your host," he said. "I can see no reason why you should not die, yet I was young once and it may be that I understand. You have acted as a Noble of Troyana should act when you returned to face death in the hope of rescuing her. The problem is one for the Master to decide."

"Your companions told me of the conditions in the city. I have received no communications for some time and was ignorant of the rebellion. Now I have summoned the eleven packs of *Guardians* and twelve hundred cowans. With this force I am about to attack the lower city and strive to rescue the Master and my brethren. Your mission is a similar one. Until the Master has sat in judgment on you, I accept you as a brother. Your rank entitles you to be my second in command. If you fall in the attack, the question is settled. If I die, do your best to win through. If we both live, when we reach the city, Zephaniah can decide."

"Thank you, Brother Gedaliah!" cried Nankivell. "When do we attack?"

"At once. The last of the eleven packs of *Guardians* has arrived."

"Good enough!" cried Nankivell as he picked up his rifle. "Lead the way and tell me what you want me to do."

He followed the blue-clad Warder into the open, the cowans behind them. Nankivell stopped and raised his rifle at the sight which met his gaze. He had been wrong in thinking he had blundered into one of the guard huts set in the cultivated fields, for he emerged

into a natural jungle clearing. Ranged before him were hundreds of Indians in war regalia, carrying spears and short bows. The thing that made him pause was the sight of the *Guardians of the Jungle*.

LONG before, Nankivell had seen them on the screen of Nahum's observer, but this was his first glimpse of them at close range. They were the height of a small horse, but in form they resembled a giant frog walking on its hind legs and only occasionally touching its forelegs to the ground. The forelegs, while short, were heavy and powerful and equipped with vicious claws, eight inches long. The head more nearly resembled a frog's head than anything else, except that the snout was somewhat elongated. From their mouths projected four tusks, each a foot in length, while an opened mouth displayed three rows of long, pointed teeth. In color they were a brilliant green on top with the exception of long spines projecting from the back and tail, which were a dull blue. The color faded to a dirty yellow on the underside and toward the end of the heavy tail which seemed, contrary to the usual course of nature, to be larger and heavier toward the end than close to the body. The brutes, which weighed fully a ton, had faces grotesquely splashed with orange and crimson.

Gedaliah saw Nankivell's gesture and caught his arm.

"Don't use your weapon!" he cried. "They are our allies."

Nankivell lowered his rifle with a sheepish grin.

"Excuse me," he said apologetically, "I was startled."

Gedaliah smiled and then raised his voice in command. From each of the groups of cowans, two leaders detached themselves and came forward. Gedaliah spoke rapidly in the Indian tongue. When he had finished, the Indian leaders bowed down and touched the ground at Nankivell's feet with their finger tips.

"The sign of fealty to a Noble of Troyana," explained Gedaliah. "I have ordered them to obey you if I fall. You will have no trouble with them."

The Indians returned to their men. The Warder led Nankivell across the clearing to the solid jungle. He pushed into the tangle of undergrowth for a few yards and paused. Before them stretched the cultivated fields of Troyana, the city itself lying about two miles away. Directly opposite them were the three huge dormitories occupied by cowans when their duties kept them in the city. Ranged on each side were the circle of homes of the Craftsmen, while on the hill, dominating all, were the beautiful buildings of the Planners, the rulers of the lost city. Nankivell's heart jumped as he recognized Nahum's home.

"We attack here, Brother Nankivell, because we hope that the cowans in the city will join with us. They may not love the wearers of the blue, but they have even less cause to love the black-clad Bearers of Burdens. Look carefully at the fields and tell me what you see."

Nankivell stared at the fields before him but his eyes could detect nothing unusual. Gedaliah smiled when he made his report.

"Hidden in the fields about the city are two hundred of my men," he said. "They took up their position hours ago. When the forces of Amos emerge to attack us, they will be taken in flank. It is only by strategy that we can hope to overcome the terrible weapons which will be brought to bear on us."

"Have none of your men rifles?" asked Nankivell. "If they have, I can organize a company of riflemen who

will do more damage in five minutes than your whole force can with arrows and spears in a week."

"No, they have none. We have never allowed such weapons to be brought into our territories. However, the efficacy of poisoned arrows at short range may surprise you. If our men are all in place, we will attack."

At his call an Indian hastened up and reported,

"All is ready, Brother Nankivell," went on the Warder. "We will go forward at once. We must attack in the open as the *Guardians* are too large to be hidden. Now may the Great Architect bless us and aid us in our efforts!"

"So mote it be!" ejaculated Nankivell fervently.

At a word from the Warder, the advance began. From the jungle a cloud of Indian scouts emerged and made their way in scattered formation across the fields. When they had gone a hundred yards, the main body of cowans followed them in long lines, fifty yards apart. In the intervals between lines came the packs of *Guardians*. The dinosaurs, maintained alive for untold ages and bred into their present form by the genius of the nobles of Troyana, hunted in packs of threes. With each pack were a half dozen cowans who guided the huge beasts as one would guide a well trained hunting dog. As the main body debouched from cover and took up the march, Gedaliah followed, Nankivell at his side.

They had gone a quarter of a mile before any sign came from the city. Then from the dormitories a swarm of cowans emerged and advanced toward them.

"I hope they are loyal," murmured Gedaliah. "If not, they will detect our scouts and our plans will go awry."

The Indians maintained a steady advance. Behind them came a clump of black-clad men, carrying in their hand short black tubes.

"The Bearers of Burdens," exclaimed Nankivell.

"They are nothing to worry about," said Gedaliah. "Watch the roofs of the dormitories. Them I fear."

On the roofs of the buildings groups of men were working with feverish activity, assembling machines they had carried to the elevations.

"What are they erecting?" asked Nankivell.

"I don't know what device Amos is using. We have a dozen which will spread death and destruction at long range. Look, the scouts are almost in contact. A few moments will tell the tale."

The opposing bodies of Indian scouts were less than two hundred yards apart. Already war cries rent the air. Gedaliah's men bent their bows, ready to send a shower of death-dealing missiles toward their enemies.

"They are loyal to Amos!" cried Nankivell.

"I doubt it!" answered Gedaliah. "It is impossible that they would not have discovered our ambush. Watch closely."

From the ranks of the advance guards arrows began to fly. Most of them fell short but presently one of Amos' scouts stumbled and fell forward. With a shout, his companions charged, loosing their arrows as they did so.

From the ranks of Gedaliah's scouts, men fell, but the toll among the attackers was far heavier. The Burden Bearers charged forward, brandishing their flashtubes.

"Now watch!" cried the Warder.

As the black-clad line charged, their shouts of triumph suddenly changed to cries of rage and fear. From behind them had risen a line of cowans and into their defenseless backs was poured a flight of arrows. Dozens fell at the first volley.

The Burden Bearers strove to face about, but their antagonists had sunk out of sight in the crops and again a flight of arrows took them in the rear. Their own Indian scouts had turned and were firing into the ranks of their former allies. In a moment the black-clad ranks were in a hopeless snarl. From in front and in rear the hidden Indians poured in ruthless volleys of arrows. Nankivell saw that the cowans who had dropped, apparently dead, in the preliminary fighting were now on their feet pouring death-dealing missiles into the ranks of the Atlanteans.

"The cowans are loyal! cried Gedaliah. "We will enter yet! Forward!"

At a run the main body of cowans charged. From the ranks of Amos' followers came a medley of blinding flashes. Where they struck a man he was hurled aside, blasted by the prisoned high-extension electric charges contained in the flashtubes. The Indians kept well in cover and their arrows took a heavy toll of the defenders of the city.

The odds in Amos' favor when the fight started, even counting all of the Indians as adherents of Gedaliah, were fully three to one, but by the time the main bodies had arrived within arrow range of one another, they were materially reduced. The main body stopped just beyond range of the flashtubes. Their ranks opened and above the din of shouts rose the blood-curdling hunting cry of the *Guardians*. The dinosaurs charged. Behind them came the cowans, spears lifted.

From the black-clad ranks came flashes of intense brilliance. First one and then another of the *Guardians*, hit by a charge, was knocked down, but rose and continued the advance. Although a whole limb might be torn away by the force of the tubes, it did not affect the rudimentary nervous systems of the monsters enough to stop them. With hideous howls, they threw themselves on the black-clad ranks, rending with tooth and nail.

It was not in human nature to withstand such an attack. The Bearers of Burdens turned and fled. With howls of triumph, the cowans raced after them, spears and arrows cutting down the fleeing ranks.

"After them, Brother Nankivell!" cried Gedaliah. "We must follow them into the city or we will lose the fruits of our victory!"

NANKIVELL followed slowly, his eye on the busy groups on top of the buildings. The apparatus had taken definite form. Long ominous tubes projected from the buildings toward them. From one came a beam of intolerable light.

It swept the ground and where it touched was nothing but a smoking ruin. Cowans and *Guardians* who were in its path ceased to be living entities and became charred and smoking masses. Nor were the Bearers of Burdens spared. The *Guardians* were mixed up with the black-clad Atlanteans. In searching out the dinosaurs for destruction, the beam touched dozens of the followers of Amos and they shared the fate of their enemies. Amos was sacrificing them ruthlessly to end the menace of the attack.

Gedaliah paused in dismay as the ray began its deadly work. Nankivell threw himself on the ground, his sling about his arm. He worked himself into a comfortable position and cuddled the stock of his rifle against his cheek. He looked long and carefully through the sights and squeezed his trigger.

The rifle spoke with a vicious crack. On the side of

the ray tube appeared a long white scar while cries of pain told of the damage the ricochetting bullet had done. He worked his bolt rapidly and fired again. Fresh cries told him that his aim was good, but the tube was moving and the deadly ray was coming nearer to him. His rifle was empty. He reloaded rapidly and rolled back into position. The ray was touching the ground only a few yards from him. The brightness blinded Nankivell, but he pointed his rifle in the general direction of the apparatus and fired as fast as he could work his bolt.

There was a thunderous report and a flash of orange light from the roof. Instantly the ray died out. A chance-sent bullet had found a vital spot.

"Come on before they fix it!" he shouted.

He dashed forward, ramming home a fresh clip of cartridges as he did so. Two hundred yards ahead the door of the dormitory yawned open. Already the Burden Bearers who had escaped the claws of the *Guardians* were jammed in the doorway, fighting for the privilege of entering. From the tangled mass came flashes as the fear-maddened men turned their weapons on their comrades in the hope of blasting a way for themselves to safety.

Nankivell caught up with Gedaliah, who was running behind the main body of cowans.

"That was well done!" the Warder gasped. "But for your aid, we would have been blasted out of existence before now. I hope we may force an entrance before another ray is ready."

Hardly had the words left his mouth than from the roofs of the other two dormitories, rays of living flame shot out. They passed over the head of the Warder and struck on the main mass of cowans. Nankivell threw himself prone and raised his rifle.

He was less than three hundred yards from the buildings and the target was a large one. He lay quietly a moment to recover his breath before firing, for he guessed that at his opening shot, both rays would seek him out.

The rays criss-crossed through the ranks of the cowans, working fearful havoc. The Indians broke and scattered to make the work of the rays more difficult, but they kept up their advance toward the open portals.

Gradually Nankivell's hand steadied. He took steady aim at the muzzle of the nearer tube and fired. His aim was true. The light spluttered for an instant and broke up into a myriad of tiny beams which did little damage. He had smashed the concentrating device.

He scrambled into a new position and aimed at the second light. It was swinging rapidly around, seeking him. This time he did not aim at the muzzle of the tube for he was far enough to one side to see the controlling device plainly. A man was turning a crank to which was attached a large disc. Nankivell fired at the junction of the handle and disc.

His aim was faulty. With a convulsive gesture, the man operating the crank threw up his hands, spun around twice, and fell. Nankivell noted with satisfaction that he wore a yellow robe, marking him as one of the renegade Craftsmen who had elected to violate his oath and follow the rebel, Amos.

Another man sprang to the handle of the machine, but Nankivell's rifle spoke again and he staggered back, nursing a smashed arm. No one else came forward for a moment and Nankivell fired his two remaining shots at the disc. As he reloaded his rifle, another man grasped

the handle, but all of his efforts did not avail to move it. One of Nankivell's shots had crippled the mechanism to which it was attached.

"Come on!" he shouted as he leaped to his feet.

Before he had crippled them, the rays had done deadly work. Only a handful of the cowans was left and none of the fearful *Guardians* had survived. The cowans still on their feet were valiantly pressing forward toward the open door. Nankivell's heart leaped with gladness as he saw the blue-clad figure of the Warder still following them closely.

Nankivell shouted. Gedaliah picked his shout out of the din and turned. He waved to Nankivell but did not pause. The scattered rays of the crippled projector still roved the field while one solid ray bored into the ground. Around the device a dozen men tugged unavailingly at the handle.

Nankivell ran forward at his best speed. The doorway was still jammed with Atlanteans among whom the arrows of the cowans fell unceasingly. An advance through the door was impossible, so blocked was it with dead bodies. Nankivell caught up with Gedaliah. The Warder was striving to make himself heard.

First one and then another of the cowans heard his voice and ceased their war-cries. In the silence his sonorous tones rolled out. The Indians ceased their shooting and rushed forward. Toiling feverishly, they pulled bodies away until the doorway loomed open. They fell back and looked at their leader.

"Get your pistols ready, Brother Nankivell!" he said.

Nankivell slung his rifle over his back and took an automatic in each hand. The Warder carried one of the short black tubes from which the Bearers of Burdens had shot the flashes which had spelled the doom of so many cowans.

"We will lead the way!" he cried.

The cowans gathered in a group behind him.

"Come with me, Brother Nankivell!" he said.

Side by side the two leaders raced toward the doorway. Over the dead bodies of the Atlanteans they climbed. The doorway yawned before them. Through it they raced, flashtube and pistols held ready. As they passed the portal, there was a blinding flash. Nankivell felt himself whirled about as though in the grasp of a mighty force. Something gripped him by the throat, shutting off his breath. He strove to raise his hands to tear it away, but they were strangely immobile and refused to obey his will. The choking became worse until sparks began to float before his eyes. Then came blackness. . . .

CHAPTER VII

In Amos' Hands

As the blackness closed around him, the choking sensation passed. Held powerless in the grip of that strange power, Nankivell was unable to move or to cry out. Hands touched him in the darkness. About his body they moved, stripping him of his weapons. They failed to find the small revolver which, in imitation of Ray Willis, he had strapped under his left armpit. When his weapons were removed, strong hands picked him up and bore him through the darkness.

Presently he was set down upon his feet. A voice spoke in Hebrew, vague and faint as though coming from a great distance.

"Remove their bonds and hoodwinks so that I may question them."

A tiny speck of light showed brilliant in the darkness. It grew larger and approached him until it seemed to pass through his eyes into his very brain. The darkness slowly dissipated and the power of movement came back to him. He rubbed his eyes and looked around. He was in the amphitheater, the hall where the annual sacrifice and adoration of the Golden Calf were celebrated.

There was no mistaking the place. There was the vaulted hall with tier and tier of seats rising from the floor. Before him was the raised platform with the grotesque monster which the nobles of Troyana had constructed ages ago as a symbol of visible worship for their depraved Atlantean slaves. On its forehead glowed a spot of intolerable light and on the altar before the image, the sacred fire still flickered.

The last time Nankivell had seen that hall it was filled to overflowing with serried ranks of black-clad slaves. The boxes had been gorgeous with the yellow robes of the Craftsmen and the blue of the Planners, while the crimson of the Keepers of the Crypt, the rank to which he had been exalted before his departure from the city, had added a note of barbaric richness to the scene. Now the hall was empty save for a cordon of Burden Bearers who guarded him.

"Look on me, Brother of the Cryptic Rite!" said a deep voice.

Nankivell came to with a start. Before him, attired in the gold-bordered crimson robes of his rank, stood Amos. On either side of their leader stood two yellow-robed Craftsmen who had followed him into rebellion. Nankivell raised his head and stared insolently into the deepest eyes which seemed to bore into his very brain.

"I see you, renegade and traitor," he said in Hebrew.

A flush passed over Amos' face.

"You will answer to me for those words after I have wrested from you the information I desire," he said slowly. "Tell me why Zephaniah sent you from Troyana into the outer world."

"Wouldn't you like to know?" murmured Nankivell to himself, forgetting for the moment that Amos spoke English as fluently as he did.

"Yes, Brother Nankivell," replied Amos. "I would like to know and before we finish, I will know. Will you tell me of your own free will and accord or shall I wrest it from you by ways of which I know?"

"Amos," asked Nankivell lightly, "have you ever tried interrogating a clam? No? Well, you had better practice on one before you tackle me. I am sure that you will find it, comparatively speaking, a loquacious beast."

"Your levity will sound a different note when you are stretched on the altar with my Atlanteans torturing you, Brother Nankivell. For the last time, will you speak, or shall I force you to do so?"

"Try and do it," invited Nankivell.

Amos turned away from him. Nankivell followed the direction of his gaze and saw Gedaliah standing a few paces to one side.

"I have long waited for this moment, mighty Warder of the Outer Ways," said Amos, a threat in the silky tones of his voice. "Unless my memory plays me false, it was one Gedaliah who led the revolt forty years ago which led to my being thrust from the Master's throne of the Blue Assembly. When I planned to recover the place which is mine by right, revenge on you was one

of the pleasures I promised myself. You may, however, escape a large part, or all of my vengeance if you obey my will. Why did the Master send the four brothers to travel in foreign lands?"

"Doubtless for good reasons which he did not see fit to communicate to me," replied the Warder, gazing fearlessly into the face of his questioner.

"You may be speaking truth," said Amos slowly, his eyes searching Gedaliah's face. "I will question you no further. I have no reason to love you, Gedaliah, yet we are of the same blood. I need Planners to help me direct the labor of my followers. Will you join me and aid me?"

An expression of loathing crossed the face of the Warder. He took a step forward and spat on the ground at Amos' feet.

"Traitor, violator of your oath," he rasped. "Rather will I be torn limb from limb by your slaves than to acknowledge you as a brother, let alone aid you."

Amos restrained himself by an effort. He needed the services of others of the Planner degree badly.

"I am Master of the Red Conclave, and by right, Master of the Blue Council," he said in a voice which he strove to make winning. "You will violate no oath if you obey me and aid me in bringing the usurper, Zephaniah, to the doom he merits. For reward I will make you Senior Deacon of the Council, when I control all Troyana. As an alternative, if you choose to continue your present attitude, I offer you a slow and painful death. Such a decision should not be difficult to make."

He leaned forward, studying the face of the Warder. Gedaliah cast down his eyes as though in thought.

"Come hither, Amos," he said, "and let me confer in quiet with you."

With a pleased smile, Amos stepped forward to the Warder's side. Gedaliah leaned forward as though to whisper in his ear. There was a shout of dismay from Amos' followers. The Warder threw his arms about the crimson-clad form of Amos and dragged him to the ground. He threw himself on the prostrate form, groping under the traitor's robes for one of the flashtubes which his knowledge of Troyana ways told him would be there.

AMOS cried out in Atlantean. The Burden Bearers hesitated for a moment before they threw themselves forward to drag Gedaliah from their leader. That moment was all that Nankivell needed. His hand had sought his left armpit as Amos had moved forward. Now with a shout he leaped to Gedaliah's aid, a small revolver in his hand.

"One side, Gedaliah," he cried.

The Warder heard and obeyed the cry. He threw himself sideways, exposing the form of Amos to Nankivell's fire. Nankivell raised the little gun and took deliberate aim. The weapon roared and a red welt appeared on Amos' cheek. Nankivell cocked the gun and took aim again.

The gun spoke a second time, but an Atlantean threw himself forward and received the bullet meant for his leader. Before Nankivell could fire again, he was pulled down and buried under a dozen men. Pressing his gun against the nearest, he fired. The Atlantean went limp, but another took his place. Again and again Nankivell fired until only a dull click responded when he pulled the trigger. A flashtube pressed against his side. Nankivell

steeled his flesh against the shock he momentarily expected. A hoarse cry sounded through the air. The flashtube was removed. The Atlanteans rose and he was jerked upright. Before him stood Amos, blood flowing from a wound in his cheek. Gedaliah was also on his feet, tightly held.

With an effort Amos banished the rage from his face.

"You fought well," he said to Nankivell. "I blame you not. You are a loyal man. Now that your last effort has been vain, there is no reason why you should not abandon your lost cause and join me. What is your answer?"

"My answer is that I only regret that I'm such a rotten shot," replied Nankivell. "If it had only been Ray Willis!"

With a muttered curse, Amos turned to the Warden.

"Again, Brother Gedaliah, I offer you a position of honor under me," he said. "I hold no grudge for what you have done or for my followers you have killed. Make now your choice, for there will be no other opportunity. Once I give you to my Atlanteans, even my authority will not stay them."

"My choice has been made," said Gedaliah shortly.

"Take him away!" cried Amos in sudden rage. "Work your will on him, only let him not die. If he calls for me, I will come. When you have done with him, bring him to the altar for sacrifice."

With shouts the Burden Bearers closed around the luckless Warden. They bore him from the hall with cries of anticipatory joy. As he reached the doorway, Gedaliah freed himself for a moment and turned to face them.

"Farewell, Brother Nankivell," he cried. "It is good to have known you. If you win through, tell Zephaniah and the brethren that I was faithful to the end and strove to merit the honors they bestowed on me. As for you, Amos, I will have words for you later, words which you may not love to hear."

"Take him away!" cried Amos.

The Atlanteans hustled the Warden from the hall. Amos turned to Nankivell, a smile on his lips.

"Now that that stubborn fool is gone, we can talk," he said in English. "To one of your intelligence, I will attempt no subterfuge. You know that I will never be content to rule a debased race of savages such as these Atlanteans. I have no idea of exterminating the nobles of Troyana. I have means at my command to subdue them as I subdued you, but I need one in their camp to aid me. You owe no loyalty to Zephaniah and I would be your friend. It was for the purpose of offering you my friendship that I called you back by the vision I sent to the jungle. During the fight, my men were careful not to harm you. You were brought here as gently as you would allow. There is no reason why you and I should not be friends."

He paused and looked speculatively at Nankivell. Nankivell gave him back gaze for gaze.

"What do you propose to do with the Atlanteans?" he asked.

"Once I have subdued the handful of nobles left opposing me and have rendered them unconscious, I will call them back one by one and explain the situation to them. Many of them are only lukewarm supporters of Zephaniah now. Faced by the choice they will have,

they will side with me. Those who do not will return to unconsciousness until there is need of them for sacrifice. With the aid of those who cleave to me, the Bearers of Burdens will be thrust back into the lower city and their lot will be worse than it was before. I will teach the swine to rebel against their masters! Matters will go on in Troyana as they have for untold ages, only I will again occupy the blue throne which is mine by right. Will you join me in such an endeavor?"

"What reward do you offer?" asked Nankivell.

"For place and power, name what you will. The greatest reward I will give you will be the person of Nahum's granddaughter. She is a prisoner in my hands to dispose of as I wish. If you choose to adhere to me, she shall be given to you as a slave, to do with her as you wish. Any position, other than the blue throne, shall be yours. Is the reward enough?"

"And what if I refuse?"

"You will not be so foolish. Did I not say that Nahum's granddaughter is a prisoner in my hands? If you refuse the gift of her person, she shall be given to my Atlanteans. Bound to the altar, you would have the pleasure of seeing her ravished by those half-human brutes, and finally, after they have done with her and have tortured her white flesh to their heart's content, she would precede you as a sacrifice on yonder altar. Why dwell, however, on such unpleasantness? You will go with her to the sanctuary, telling Zephaniah and Nahum that you rescued her from my hands. They will welcome you. You will have but one simple task to perform to enable me to conquer. After that, your position will be that which you choose to name."

"Amos," said Nankivell slowly. "I'm glad to have known you. I have always wondered what a really whole-hearted, thorough-going villain looked like. Now I know. First you betray your Master, next you plan to betray your followers, and lastly you would betray your dupe. This is my answer!"

Before Amos could fathom his intention, Nankivell sprang forward and swung his hand with all of his strength. His open hand smote Amos' cheek in a stinging slap like a pistol shot. The traitor staggered back.

"Seize him!" he cried.

Nankivell whirled about, his fists ready, but he was overwhelmed before he could strike a blow. His arms pinioned to his sides, he faced the maddened Amos.

"That blow, Brother Nankivell, will be one more thing for the granddaughter of Nahum to answer for," he grated through set teeth. "Do not think that I spoke idly when I told what your punishment would be. Just now my Atlanteans are taking their will of the stubborn Warden of the Outer Ways. I will allow them one hour for their sport. You will stay here, bound to the altar, and may reflect on the pleasure in store for you. I will go now to prepare your mistress for what she is about to face."

He gave a command in Atlantean. In an instant Nankivell was bound to the altar beneath the nose of the grotesque image. Followed by the wearers of the black, Amos left the hall, only four men armed with flashtubes being left. Weapons in hand, the quartette paced up and down before the altar, pausing now and then to lick their thick lips in anticipation as they looked at Nankivell's bound form.

The Pent House

By

David H. Keller, M.D.

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"The Eternal Professor," etc.*

STATISTICS show that there are an increasing number of deaths due to cancer. What causes this malignant disease is as much of a mystery to the most painstaking research physicians today as it was a century ago. Dr. Keller has a theory, and in his own inimitable manner he elaborates on it in this short story.

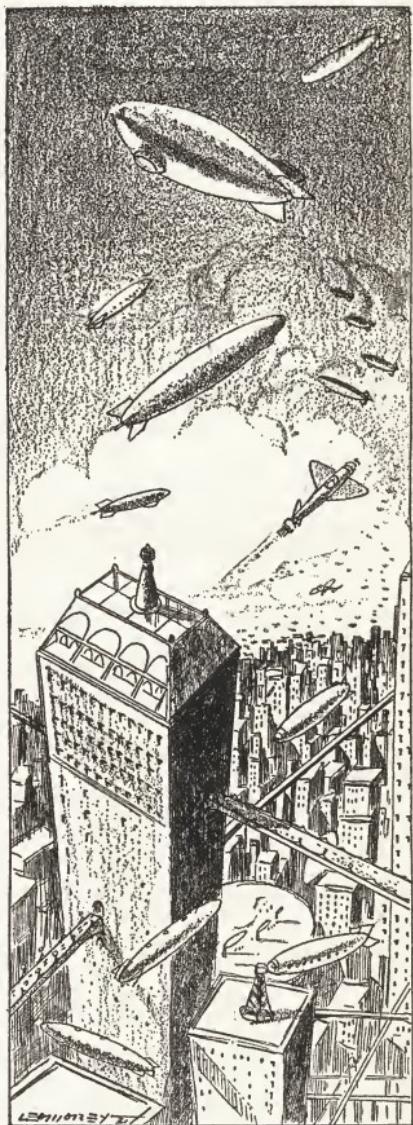
Illustrated by MOREY

WANTED. FULL-TIME SERVICE OF A YOUNG MAN AND WOMAN. MUST BE CULTURED, WELL EDUCATED, IN PERFECT HEALTH AND CONGENIAL. EMPLOYMENT GUARANTEED FOR FIVE YEARS. INQUIRE IN PERSON. TIMES BUILDING, ROOM 1030.

THIS advertisement in the personal column of the New York Tribune did not miss fire. There were too many people without work. As far as the culture and education were concerned, practically all who read the advertisement in a serious mood admitted that they were able to qualify.

Consequently the waiting room of 1030 was immediately packed with applicants for the position. To the sorrow of many it was announced that single applicants would not be given any consideration. The word congenial implied previous acquaintance and a paired effort to obtain the work. The announcement was gravely made that the situation was not only for a man and a woman, but for a couple who were well acquainted with each other.

Mankind has a peculiar ability for adapting itself to new and novel situations. Many of the single applicants came back in a few hours with one of the opposite sex, concerning whose congeniality there could be no room for doubt. At the end of the week over five thousand couples had filled out the required papers. Now began a very complicated process of elimination. A personal interview with university professors quickly determined the degree of culture and education each couple possessed. These two factors disposed of over ninety percent of the applicants. Then came a physical examination to turn back the unfit. This was most illuminating, both as to the health of the average New Yorker and as an index to what could be expected of the generations to come. Something seemed wrong with almost every person examined, and in many instances if the man was healthy, the woman was not.



... Just lock the door for another five years
of heaven in a Pent House.

At last only five couples remained, and then the question of congeniality had to be determined. The psychologists who estimated this factor did so by asking each of the ten persons five hundred questions, each of which had to be answered by a "YES" or "NO." It was thought that a ninety percent uniformity on the part of the man and woman indicated congeniality. The examination considered the likes and dislikes on every possible subject. And the result was that not one of the five pair came within even seventy-five percent of perfection.

The results were given in detail to the old man who was financing the investigation. The results were not at all pleasing to him, but he frowned at the suggestion that the advertisement be reinserted.

"It will only result in the same ending," he declared. "Suppose you send them in to me, a pair at a time."

He was a lonely figure as he sat stooped-shouldered and white haired at his mahogany desk. Around him, in pictures, draperies and furnishings, were many reminders of evident wealth. He, however, was plainly dressed, and a careful observer would have noticed that the heels of his shoes were run down. Evidently he was either too busy or too independent to bother with such trifles.

The young people came into the room in pairs, and he asked each couple the same question:

"Why are you applying for this position?"

One couple replied that they needed the work; another that the five-year contract would enable them to save enough money to start business for themselves; another pair wanted security of employment and leisure so they could study for additional degrees at Columbia. Finally the last pair came in. The same question was asked. The man looked at the woman, smiled, and replied:

"Because we love each other, and it seemed that, if we obtained this position, it would give us a chance to be together a good deal."

The old man smiled and rang for the psychologists.

"What percentage of congeniality did this pair show?" he asked.

"They were the lowest. Under fifty percent."

The old man smiled as he commented:

"I think it was more a test of the psychologists than of the young people. I am going to offer this man and woman the position. Pay all the rest for their time and dismiss them. Discharge all the specialists."

He waited till they left the room, and then turned to the young people.

"And now," he said, "you have a job that will last for five years. Out of five thousand persons, you were the two who made the grade. Do you want to know what the work is to be?"

"It does not make much difference, sir," the girl replied. "So long as we can see a lot of each other."

"That is not a bad answer," the old man said with a laugh. "But at the same time I think you should know more about it before you make the final acceptance. These are the facts.

MY name is Dr. Jordan. Finance is my business; research work my avocation. Thus I make and spend money. I am building, and am just about finished with it, a seventy-story apartment house. On the top is a pent-house which is rather unusual in architecture and size. It is really most complete in every way, and

entirely self-sustaining as far as all service is concerned. That gives it complete isolation. It is really a lonely island in the air; but instead of a sky for a roof it has a roof of glass, opaque glass of a very satisfactory thickness. Underneath the floor, in something that might be termed a basement, I have built storerooms which are very large. These have been filled with every possible necessity and many luxuries. In the basement and the pent house everything necessary for the comfort, health and happiness of two young people will be placed. I have had specialists in every line assist me in selecting these supplies and I am sure nothing has been overlooked. Everything has been carefully catalogued and that card index is a work of art. Whatever you want or think you want, refer to the card index and its location will be given, or a substitute named.

"I have not overlooked the problem of entertainment and happiness. There is a phonograph with five thousand records, and a library with as many books. If you want to begin any form of activity, consult the catalogue and you will find advice and directions. I have a gymnasium, laboratory, workshop.

"Your work will be comparatively simple. The two of you will enter the pent house and the door will be locked. It is a very substantial door with a time lock. At the end of five years it will open automatically. No one knows the combination that will unlock it except myself. At the end of five years the door will be open and you can walk out."

"And all we have to do to earn our salary is to walk up there, stay there for five years and walk out again?" asked the man.

"That is all," answered the Doctor.

"And what is the salary?" asked the man.

"Oh! Why bother about that?" said the woman, interrupting the conversation.

"Correct. Why bother?" replied the old man with a smile. "When the door opens and you come out, the entire wealth of the world will be yours. At least half of it, for there will be another young couple in San Francisco to share it with you. Even after you divide with them you will have all you can desire."

"Everything ours?" asked the young people with a gasp. "How will that be possible?"

"Because I believe that the four of you will be the only human beings alive at that time."

"You must be joking," declared the young man indignantly.

"Not at all. I never was in greater earnest. Cancer is the threat behind it all. Perhaps you do not know it but even now it is more than serious. One out of every four who die after the age of 40 die from some form of cancer. The incident of the disease is rapidly increasing. I have my own idea of the cause. I think the condition comes from a very minute, ultra-microscopic germ in the air. These come from some distant planet in great clouds. I am sure that we have been on the edge of one of these clouds for some years and now we are going to enter it. When we are once surrounded by it, the entire human race will die in a year or two from cancer."

"But the refuge I have provided for you two in New York and the similar couple out West, provides complete protection. The pent house is hermetically sealed and the air within is automatically purified. All of the machinery is operated by electricity and there are three

distinct units. If one fails, the other two are available. You will be taught how to use them. My specialists tell me the system is perfect and fool-proof. They have been working on the idea for years and have kept animals alive for a long time in glass chambers constructed on the same plan as the pent house.

"You two are to go there and live. Keep in mind the future. At the end of five years you will walk out. I have arranged for your satisfactory communication with the young people in San Francisco. You four of you will have to continue the human race. My figures show that in two years you four will be the only men and women alive and at the end of five years the earth will not only have passed out of the cancer cloud but the germs on the earth will have died out for lack of fresh victims. Then you will be safe for life in a new and perhaps a rather lonely world."

"Will we have any communication with the outside world?" asked the man. "Can we have a telephone and radio?"

"No. It would be too discouraging. I am not even going to let you see the sky because then day by day you would see the gradual diminution in the number of airplanes."

"It is a good position," commented the woman, "and I am sure we are thankful to you for it, but who will pay us when the time is up?"

"I told you that you would have half of everything."

"I understand that, but somehow we will feel that it was not really earned by us. Could you pay us in advance? You see we could not spend it and it would be just as safe in the pent house as it would be in one of your banks."

"I will do that. How would a hundred thousand in gold do? No use giving you paper money, for all of the banks are going to go out of existence and all of the governments, too."

Suddenly the woman looked serious. Taking her partner in the fantastic adventure to one side, they engaged in earnest conversation. At last she came back to the old man and took hold of his hand. There was no doubt of the sincerity in her voice.

"We want to ask you a favor, Doctor," she said. "We are going to ask you to come and live with us. You are not so very old and you have thought this all out and planned it all and it just seems as though you ought to see the experiment through to the end. It would be too bad to have you pass out with the rest of the race."

"You don't need me. You will be happier without me."

"Perhaps we don't need you, but we really do want you. You will be company for us and I feel that as the months pass, we would grow to love one another. You would be just like a Father to us."

"We are in earnest," agreed the man. "We really want you."

"I'll give it some thought," replied the old scientist, and in the end he really did say "Yes."

He put all of his financial affairs in the hands of a trust. He told his friends that he was going to Europe. Fearing the sting of ridicule, he had kept the real secret of the pent house to himself, so when the three of them went in and closed the door behind them, no one knew about the tremendous experiment that was being conducted in person by one of the leaders of science.

Thus for the first time in many years the dear old fellow had time to do as he really pleased. He had always wanted to study certain phenomena relative to the development and growth of the yeast plant. The young woman, Doris, made very fine bread and this kept the Doctor well supplied with a constantly fresh amount of yeast. Up to this time he had been so busy making his millions, that he had had no time for such studies. Now his time was fully occupied with his hobby, but there were lots of spare moments for a game of cards while Doris sewed at the side of the table.

The man, Claude, had a rather large number of household tasks that had to be attended to with a very definite routine. The electric generators had to be looked after, the air machines properly regulated and the supplies for the day brought up from the store rooms. Then the little garden in the conservatory had to be properly cultivated to insure a proper and adequate supply of fresh vegetables. In the afternoon he and Doris always had a game of volley ball followed by a swim in the pool. Claude asked the Doctor one day about their water supply.

"If every one dies," he said, "the water supply of the city will fail. How will we get along then?"

But the old man simply laughed and explained that he had an artesian well under the building which served no other purpose than to supply water to the pent house, the water being raised from its source by electric pumps under automatic control.

"And so long as our gasoline holds out, the pumps will work," the old man added.

DORIS was busy but was not driven by her work. She cooked and read and sewed, played volley ball, dreamed and had a wonderful time generally.

If there was no demand for a card game there was always some old favorite available on the victrola, a good book, interesting conversation, or just old fashioned courting in the living room, while the old Doctor pretended to be deeply engrossed in his studies.

A year passed and then two. One night in the early months of the third year Claude roused the Doctor.

"Doris is not feeling good," he whispered. "She wants you to come and see her."

An hour later the physician rejoined the young man and said:

"I have been so interested in the larger details of this experiment that I have overlooked some of the smaller ones. Are you young people married?"

"Certainly. A week before we came up here. Why?"

"Nothing. I just wanted to know."

Hours later the Doctor came out again:

"It's a girl, Claude, and everything is all right."

"What do you mean, Doctor?"

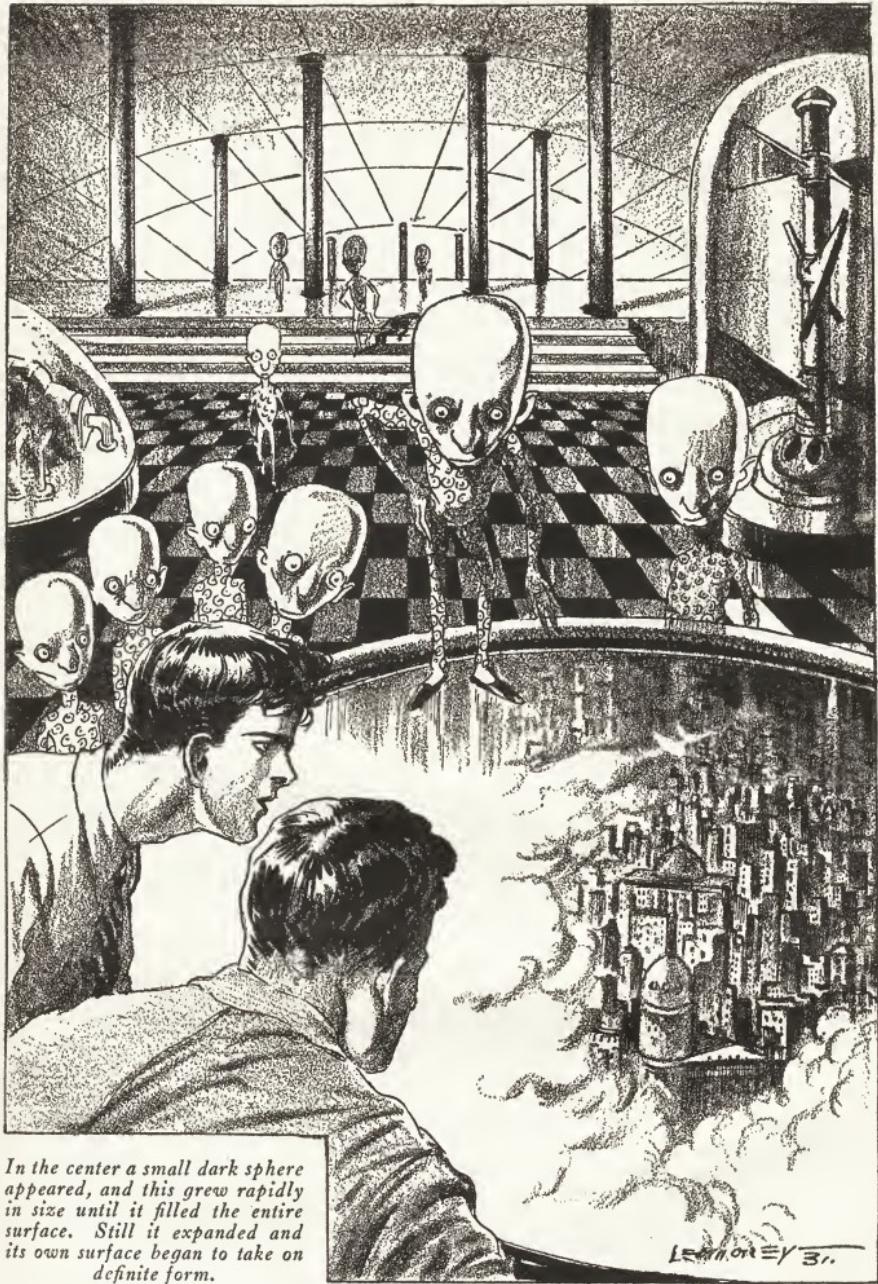
"I mean that you and Doris have a daughter."

"I don't understand it," exclaimed the astonished man.

"Fathers never do," replied the old scientist, who for the last twelve hours had been both Doctor and nurse.

So after that four lived in the pent house. There was no scarcity of any supplies. It seemed that the wise old man had anticipated precisely this possibility.

Little Susanne was walking and talking when the five years expired. The four were having such a happy and satisfied time that for long weeks they forgot just why
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In the center a small dark sphere appeared, and this grew rapidly in size until it filled the entire surface. Still it expanded and its own surface began to take on definite form.

The Sages of Eros

By John Francis Kalland

*I*t was by superiority of mind, rather than by cunning, that man was finally able to assert his superiority over all other life, on the land and in the sea. The problem of what form of life has finally survived on our other planets—granted, of course, that life does exist there, and there is no positive proof that it does not—is still a subject of interesting conjecture. It would solve a lot of problems and eliminate much of the dangers if some inventive genius could conceive our new author's plan for interplanetary travel and work it out into a true actuality. It seems simple enough and most practicable in this story.

Illustrated by MOREY

THE great day had arrived at last. Months of labor and thousands of dollars had been expended in preparation for the great event. Now, on the 20th of August, 1939, it was about to take place.

The actors in the coming drama, Jack Prescott and Jim McGuire, were seated in the grill of the new Hotel Vistoso at San Antonio, eating what might well prove to be their last meal on Earth.

Prescott looked over at his companion questioningly. "Any regrets, Jim?" he asked soberly.

"Regrets!" exclaimed McGuire. "Good Lord, Jack! You know that all I've done for the past year is to look forward to this day."

"Well," said his companion quietly, "you know that several people have tried this stunt and none of them has ever come back."

"That's all very true," agreed McGuire, "but no one can say for certain that they are not still living. In fact it is not at all impossible or improbable that they found conditions more congenial on some other planet than they were here and decided to stay."

"At any rate," Prescott observed, "we're in for it now and it will only be a few hours before we take off."

When the meal was finished, the pair left the hotel and drove to the air field where an enormous throng had gathered. They found their way blocked, and it was not until a special detail of police had cleared the way, that they were able to make their way to the center of the field, where a small space surrounding a huge torpedo-shaped object had been roped off. A cordon of sweating policemen were having their hands full keeping the crowd from surging through the ropes.

The two young men made their way to a small shed that had been built near the torpedo-shaped object and disappeared through the door. A few minutes later they reappeared and strode toward the object in the center of the field. As they reached it, they were recognized by the crowd and a wild tumult arose.

TWO young commercial air pilots, Jack Prescott and Jim McGuire, had finally succeeded some months previous, in obtaining the necessary financial backing for an attempted flight to the planet Mars. Under their supervision a rocket had been built. This craft was equipped with four bell-shaped tubes at the rear end, through which expanding gases, generated by a powerful explosive, were forced out, to give the vessel propulsion by reaction. Another tube was provided at the nose to be used for retarding the forward speed in landing. This tube was provided with a temporary cover that was pointed to offer less resistance to the rushing atmosphere. The rocket was also equipped with folding planes and propellers so arranged that they could be adjusted from the interior. The propellers were driven by the newly perfected electric motors that derived their power from the electricity in the surrounding atmosphere. Thus they were prepared to land in the same manner as with an ordinary plane, after the forward speed had been retarded by explosions.

On August twentieth Mars would be nearer to Earth than it had been for fifteen years. Direct opposition had occurred in the previous month but the planet was now only a little out of line with the sun. Many doubted the advisability of attempting the trip at this time because of the fact that Earth would in all probability be invisible from Mars, thereby making a return journey extremely difficult. The young men scoffed at this. They pointed out that all they had to do for their return journey was to point the rocket in the direction of the sun and Earth was certain to intercept it. They planned if they were successful in reaching the red planet, to remain for a week or two and then return to Earth. Although the rocket now rested in a cradle of steel beams and they had little hope of finding anything of that nature on Mars, they did not believe that they would experience much difficulty in getting the rocket into an upright direction for the return flight. One motor was equipped with a drum and a cable with which they proposed to raise the rocket into a vertical position. All

that they needed to find on Mars was timber or something to be used as props; this they believed would be easily enough acquired. The supply of food was calculated to last them for six months and, as McGuire jokingly remarked, if they did not return in that time, they would either be supplied with food from other sources or would never be in need of food again.

PRESCOTT and McGuire had finished all their final preparations of the rocket and were now in the small structure on the ground. Jack had just finished washing up.

"How do you feel now Jim?" he asked, looking at his watch. "Nervous? Only fifteen minutes left."

McGuire wiped the soap from his eyes and turned to face his companion.

"Nervous!" he repeated disdainfully. "Say, Old Kid, I'm all set for swim in one of the Martian canals on the twenty-third of this month and we'll be back in old San Antone inside of four weeks at the most."

Prescott smiled a little wanly. It was plain that he regarded the adventure more seriously than did his light-hearted companion.

"I wish I could feel as sure about it as you do," he said, "but the difficulties are great."

McGuire looked at him curiously.

"What's the matter, Jack?" he asked. "You're not getting cold feet now, are you? You know that all the tests have been carefully made. We've figured that we'll get up enough speed to average about one hundred and twenty miles per second, which will bring us to Mars in eighty-two hours. We can't miss Mars. When we leave the attraction of Earth's gravity, we are sure to be pulled to Mars. I don't see anything to worry about."

"That's all very well," Prescott answered dubiously, "but the most careful calculations have a habit of sometimes going astray. Then there is another thing. What if we collide with one of the millions of bodies that are continually hurtling through space?"

"Oh rats!" McGuire laughed. "We might get a heart attack, too. Why worry about those things? Come on, let's get out of here. There isn't much time left."

The field was packed with a dense sea of humanity. The space immediately outside of the roped-in area was occupied by prominent city and state officials and many of the country's leading men of science. The clearing was flooded with brilliant light and the jostling milling crowd fought for a glimpse of the rocket and the young men, about whom so much had been written. Attempts at speechmaking were abandoned for it was impossible to quiet the immense throng.

The minutes dragged out eternally. Men glanced nervously at their timepieces, women fainted and children were crushed ruthlessly by the straining mass.

The red planet rode majestically in a clear sky, between the constellations of Capricornus and Sagittarius. The month before, when in direct opposition to the sun, he had presented a more imposing sight. Now, though less brilliant, he was so much larger than any of the surrounding heavenly bodies, that he was easily distinguishable. The eyes of the multitude alternately sought his ruddy face and the spectacle of the brilliantly illuminated rocket.

Five minutes left!

Prescott and McGuire emerged from the shed and

walked toward one side of the cleared space. As they were recognized, a cheer, which grew instantly to a deafening roar, went up from the multitude. The clamor continued unabated while they strove to converse with a small group at the ropes. After a moment they gave up trying to speak, shook hands and hurried to the rocket. At the door they turned and waved to the crowd before they disappeared into the craft.

As the door closed upon the two figures, an unearthly silence settled upon the crowd. The succeeding minute was one of extreme tension. The brilliant light shone upon a sea of faces that were strained and white. The silence was broken only when here and there women burst into hysterical sobs under the strain.

Suddenly there came a blinding flash of light from beneath the rocket, which was followed instantly by a dull roar. The giant projectile soared up into the night, where it was instantly swallowed in the darkness except for the train of fire that hissed in its wake. The crowd caught the flash of three more explosions, the last one the veriest pinpoint of light, and then there was nothing more to be seen. For many minutes they stood watching, at last turned reluctantly and slowly and silently left the field.

WHEN Prescott regained his senses, it was a full minute before he realized what had happened. Then it came to him, that the acceleration had been greater than he anticipated, and that they had been thrown to the floor with such force, that they had been rendered unconscious. He looked over anxiously at the prone form of his companion. McGuire was still unconscious and Prescott wondered if he had been injured. Suddenly a feeling of alarm came over him. He realized that the craft was losing momentum. Painfully he crawled over to the switchboard and pushed a button. Immediately the craft shot forward and he was again thrown to the floor, where he felt as though the life was being crushed from his body, while four more explosions, timed at regular intervals, shot the rocket ahead with accelerated speed. The interior of the craft had become unbearably hot also and he caught his breath with great difficulty. After the last explosion, he turned his head painfully to see McGuire rolling over with a grimace on his face.

"Phew!" the latter exclaimed. "There must be an elephant on me."

Prescott struggled to a sitting position.

"Good Lord!" he gasped. "I never expected anything like this."

After a short time they again became their normal selves and their spirits revived. Both were intensely thrilled to think that they were finally started on the great adventure, but Prescott concealed whatever excitement he felt, while McGuire fairly bubbled over.

"Jim, Old Kid," he said jubilantly, "it won't be long now. To think how long we have waited for this! Remember Edgar Rice Burroughs' Martian stories? Well if I meet up with one of those red princesses he wrote about, don't be surprised if she becomes Mrs. Jim McGuire. I hope the inhabitants don't turn out to be like those green devils from the dead sea bottoms that he described."

Prescott smiled amusedly.

"I doubt very much if we will find life that resembles any we know of. We will probably find use for our

heavy furs, for the atmosphere is undoubtedly too thin to hold much heat. It has been estimated that the highest temperature would scarcely exceed fifty degrees Fahrenheit."

"Rats!" exclaimed McGuire in mock disgust. "No theory-befogged scientists are going to make me believe that there are no inhabitants at least resembling the humans of Earth on Mars. How do they know it isn't warm there? And it certainly wouldn't be impossible for beings to adapt themselves to rarefied atmosphere. Look what conditions man has adapted himself to on Earth—conditions that he was never constituted for in the first place."

"Of course," Prescott admitted, "there are chances for error in all theories, but those concerning Mars are pretty well founded."

The interior of the rocket had been carefully planned to make the best use of available space and to provide the necessary visibility. The control room, which also served as sleeping and living room, occupied the center of the craft. The floor, ceiling, and the side opposite that side of the hull upon which the folding planes were mounted, were all made alike; each was constructed as a floor with a large section of clear plate glass in the center. This was done because at different times during the flight, each one of these sides would have to be used as the floor when the gravitational pull came from that side. The other sides of the room were liberally supplied with large ports. From the plate glass in the floor to the stern, and from that in the ceiling to the nose, ran large tubes, the outer ends of each connecting with transparent sections in the hull so that the occupants could see in all directions at the same time. Three duplicate sets of switchboards and three sets of cots, each anchored to the three sides mentioned above, comprised the furnishings of the control room. Below this room was a small kitchenette and a wash room. The electric stove, electric dishwasher and wash basin were detachable and provided with supports on three sides of the room. The remainder of the space at this level was utilized for storage while the space further toward the stern served as a magazine and arsenal. Access could be had to these rooms by means of trapdoors and ladders. Above the control room were water and oxygen tanks and additional storage space. The water tanks were fitted with force pumps so that the water could be forced to the kitchenette and wash room even though the latter should chance to be above the tanks in relation to gravitational pull.

As soon as the two adventurers had recovered from the starting shock, they turned their eyes eagerly to the transparent section of the floor.

Earth was dropping away with amazing rapidity. Nothing could be distinguished on its surface, however, and Prescott turned to look at the countless lights that hung in the black background on all sides. He was a little disappointed in their size at first but, after a moment's reflection, he saw the reason. Here there was no dispersion of light, so the rays shone in a straight line, making the source seem smaller than when viewed through Earth's atmosphere.

PREScott turned at a sudden exclamation from McGuire, who had continued to watch the receding globe they had left. A thin corona of light, stronger along one edge, had appeared around the planet.

"What has happened to the sun?" McGuire asked, puzzled. "It should have up by this time."

"You forget," answered Prescott with a smile, "that we are no longer turning with the earth and consequently the sun is in the same relative position as when we left. It is not exactly in the same relative position because we are not moving in an exact line away from it, but it is so close, that it will be several hours yet before it comes into our vision. Then we will see it at the southern rim."

McGuire laughed.

"I certainly use my head at times, don't I?" he asked sarcastically. "Any schoolboy should have known that. Here I've been watching for the sun to come up in the east."

"I think it would be a good idea if we got some sleep," Prescott remarked. "There isn't any use of one of us standing guard. If a meteor gets in our way, we wouldn't see it until it was too late to do anything anyway. We've just got to trust to luck."

It was eleven o'clock when they lay down but neither could get to sleep before nearly twelve because of taut nerves.

McGuire was the first to open his eyes some eight hours later and he was surprised to find that he had slept so long. He got up and took a look through the transparent section of the ceiling. Mars still occupied the space directly in the center but it had grown to the size of a full moon. Its brilliancy had increased greatly and the dark markings upon its surface were now plainly visible to the naked eye.

After watching the flaming orb for a few moments, McGuire turned his eyes to the transparent section in the floor. His jaw dropped in amazement and he let out a yell.

"Jack! Jack! Wake up!" he shouted in Prescott's ear.

Prescott sprang up in consternation, but was relieved to see the smile on his companion's face.

"Good Lord, Jim!" he complained. "You scared me out of a year's growth!"

"Couldn't help it," the other grinned. "Take a look through that floor and you'll see the reason."

Prescott turned his eyes to the point directed, and an exclamation of awe escaped his lips.

It was truly a wonderful phenomenon that appeared before his eyes. Earth, a huge black ball covered half the face of the sun. The visible part of the sun protruded beyond the South Pole and its rays glinted off the ice cap, exhibiting the most gorgeous display of colors either had ever witnessed.

The pair gazed spellbound at the magnificent sight for a long time. At length McGuire reluctantly turned away.

"Come on, let's eat," he said. "I don't know whether we should call the meal breakfast, lunch, dinner or supper, but let's have it, whatever it may be."

Prescott also felt hungry and readily assented. Prescott went down to the kitchen and it was only a short time before he returned with hot coffee, toast and bacon and eggs. The two adventurers then sat down and greatly enjoyed their first meal in space.

When the meal was finished, Prescott unearthed a small telescope and turned it toward the planet toward which they were speeding. He gazed at it for a few moments and then handed the instrument to his companion.

"Take a look at that, will you," he remarked. "Then tell me if you don't agree with my assertion that the

most popular theory regarding Mars is purely bunk."

McGuire took the instrument and glued his eye to the eyepiece. He looked for a moment and then lowered the instrument as he turned to Prescott with a blank look upon his face.

"Lord, Jack!" he said with a shake of his head. "I can't make anything of that mess. Looks like a futurist sketch to me."

Prescott laughed.

"Can't you see the famous canals?" he asked laughingly. "You know that I've always doubted the canal theory and now I'm certain that it is wrong. You can see that what appears as straight lines to the naked eye are really something else when viewed through the telescope. You can see that the individual lines cross and curve in every direction but that the groups run fairly straight. The astronomers of Earth see those groups just about as we do here with the naked eye; consequently they get the idea that they are looking at fairly straight lines but, could they see them as we did just now, they would discard the canal theory. I believe that the lines we see are long ravines or gullies, which perhaps contain the only vegetation on the surface."

"Well," commented McGuire, "if there's vegetation there is surely animal life and if there is animal life I feel sure that some of it is intelligent. I still have hopes of finding my red princess."

Prescott looked quizzically at his companion. He noticed that a half-serious undercurrent seemed to run in McGuire's jesting tone.

"Do you really expect to find intelligent life on the planet?" he asked curiously.

"Certainly," McGuire answered with emphatic positiveness. "I think we have every reason to believe that we will see beings that are just as human as we are."

"You may be right, of course," Prescott conceded, "but I don't expect to find anything of that sort. However, it will be some time yet before we will be able to find out. It is now twelve-thirty A.M. and we have been on our way twenty-seven hours. If our calculations are correct, we've still fifty-five hours to go. Long before that time, I'm sure we will be able to see the surface pretty plainly."

TIME dragged on slowly. McGuire amused himself with a mandolin, which he had brought up from the storeroom, while Prescott spent his time checking his calculations. At three o'clock they had a lunch of canned beans, bread and butter, and coffee, after which they had a game of cards.

"Not very exciting," McGuire commented. "This is about the tamest—"

"Crash!"

The sentence was never finished for at this moment the rocket lurched violently to one side and both men with their cards, loose bedding and the small table with the dishes of their recent meal, were precipitated to the side that had previously been the ceiling of the control room. It was as if the rocket had suddenly turned upside down.

McGuire landed squarely on the transparent port, face downward. As his gaze traveled into space, he gave an excited whoop. Prescott crawled to his side and together they stared in consternation.

Mars was no longer in front of the rocket but appeared to have moved to one side while directly in their

path was what appeared to be a huge glass ball off the surface of which the sun's rays glinted with blinding brilliance. At first appearance this object seemed to be of about the size of the sun as viewed from Earth, but it grew with amazing rapidity. While the pair gazed spellbound, it attained the size of a large balloon.

Events had occurred with such rapidity, that the faculties of both men were momentarily paralyzed. Neither thought to explode a charge in an attempt to avoid a seemingly inevitable collision. They merely stared, fascinated, while they involuntarily braced themselves for the impending shock.

The expected shock did not come. To their utter amazement the object seemed to halt in its headlong rush and the rocket slid through an opening in a transparent covering and gently came to rest upon a solid surface. Through the port in the stern, the adventurers saw huge transparent panels swing into place to cover the opening through which the rocket had entered.

The companions stared at each other in blank astonishment.

"Well, for the love of Mike" McGuire gasped. "What in the world do you make of that? Where the devil are we now?"

"Sh!" cautioned Prescott, pointing to one side. "We'll soon find out something."

McGuire looked in the direction indicated and saw that a door in one of the walls that inclosed the space in which the rocket rested had opened and something was coming through the opening.

"Lord!" McGuire exclaimed as three figures came through the opening. His hand went to the butt of the pistol at his waist, but Prescott laid a restraining hand upon his arm.

"Wait," he cautioned. "They may be friendly."

The three figures that stood looking at the rocket, presented one of the strangest and most repulsive sights that either of the young men had ever witnessed. They were shaped like humans of the dwarf type, being only of about three feet in height. Enormous heads wobbled on thin scrawny necks. The foreheads were of amazing height and this, coupled with the fact that the creatures possessed neither hair nor eyebrows, gave their faces a repulsive appearance. Scrawny arms and legs that seemed much too thin also added to their repulsiveness. They were entirely nude and the dead-white skin of their bodies was filled with large pores that opened and closed like the gills of a fish.

"Ugh!" shuddered McGuire and again he reached for his pistol, but Prescott laid his hand on his arm again.

"Careful Jim," he warned. "They don't look as though they meant harm. Let's see what they want."

He opened a door in the side of the rocket and they stepped out. Before doing this, they had tested the air, and found that they could breathe it.

The creatures stood regarding the pair with expressionless faces as they approached. The young men stopped within a few feet of them but they made neither sound nor movement; merely continued to stare with disconcerting intentness. The two young men experienced a most uncomfortable feeling. It was as though the fishy blue eyes of the trio pierced the innermost recesses of their brains. The situation was becoming extremely uncomfortable, when, to their utter astonishment, it seemed as though one of the creatures was speaking to them in English. There was neither sound of words nor

movement of lips but they sensed a message in their brains as clearly as though words had been spoken.

"Welcome to Holum," were the words.

"Well, for the love of Mike!" McGuire exclaimed. "Did you hear what I did?"

"I didn't hear anything," Prescott answered. "It was more like I felt my own brain say, 'Welcome to Holum.' It is apparent that these beings are experts in thought transference."

"Yes, but how can these birds transfer thoughts in English?" McGuire wanted to know.

The answer came with startling clearness and not from the person to whom the question had been directed.

"Strangers," sounded the voice within their brains, "we have learned your language from your own brains. It is not such a difficult task as you imagine. We of Holum ceased to speak by word of mouth ages ago."

The two men were staggered.

"Do you mean to tell us that you have learned our language in the short time we have been standing here?" demanded Prescott.

"Yes," came the answer in their own brains. "Your entire language is stored within your brains and there is a continuous parade of words with their accompanying mental images passing through both your conscious and subconscious minds."

IT was the most uncanny feeling Prescott and McGuire had ever experienced: standing before these silent creatures and knowing that their innermost thoughts were being read with the ease with which one reads an open book.

"Whew!" McGuire exclaimed, addressing the creature who seemed to be the leader. "Then you know exactly what I am thinking now?"

"Certainly," came the answer. "You think that we are about the ugliest beings that you have ever laid eyes upon."

McGuire's face turned a brick red and Prescott could not restrain a smile.

"Wow! You certainly scored a bull's eye that time," the former admitted sheepishly.

Prescott wondered where they were and what the creatures' intentions toward them were but he was not left in doubt for long. His thoughts were answered as fast as they were conceived and, although it seemed as though the answers came from his own brain, he knew that they came from the mind of the silent creature that faced him.

"Your coming to Holum," came the thought answer, "was accidental, but you have fallen into friendly hands. You need have no concern for your safety here. You have landed on the planet, Holum, or, as your astronomers would say, the planetoid, Eros."

The two men stared at the creature from whom the message seemed to have come, as though they thought him bereft of his senses. He immediately saw what was in their minds. He turned without a sign or expression, but to the minds of the two men came a command to follow as clearly as though it had spoken. They followed through the door, through which the creatures had entered the enclosure, and their eyes opened wide in astonishment at the scene that lay before them.

They saw that the whole place was roofed over with a transparent covering, about fifty feet above the surface. The most marvelous trees and shrubs they had

ever seen were growing everywhere in large pots. The surface upon which they walked was covered with a soft, yielding substance like an extremely thick rug. They could see the sun through the transparent covering, but its rays were apparently shorn of the glare by the material, for they fell to the surface with a mellow radiance that was wonderful.

Suddenly McGuire grasped Prescott tightly by the arm.

"Do you see what I do?" he whispered hoarsely, pointing to a shrub a short distance ahead of them.

Prescott stopped short and both stood as though petrified, staring in amazement at the shrub.

There was not a breath of wind in the place, yet the leaves and branches of the shrub were waving and nodding to each other. At the same time a peculiar droning sound came from them. The men looked around to discover that the plants on all sides were behaving in a like manner.

Both were brave men but fear of the unknown will chill the bravest heart. Icy fingers gripped their consciousness until they felt the eyes of their guide upon them, then a feeling of assurance stole over them.

"There is nothing to be alarmed about," came the reassuring message to their minds. "Our plants have developed the property that we ourselves have found unnecessary; the property of audible speech. The ability to move their members was developed in a certain manner which will be clear to you later."

He turned again and now the adventurers found that the others had gone, leaving them alone with the creature who had seemed to act as spokesman. They followed him and presently found themselves beside a two-seated vehicle that rested upon four broad, flat tires. The guide seated himself in the front seat and they obeyed the unspoken command to climb into the rear seat. The guide made not the slightest movement, but to their utter astonishment, the vehicle started forward as soon as they had seated themselves.

The scenes that followed gave Prescott and McGuire the feeling that they had blundered into a veritable fairylane. Everywhere was the same transparent covering and the same carpet covering the surface. Ahead the roof always curved downward to meet the surface. Set in marvelous gardens, they passed structures whose magnificence left them breathless with admiration. These structures, built low, were constructed of precious metals and ornamented with jewels of marvelous beauty. They passed many creatures of the same type as their guide, riding in vehicles similar to the one in which our earthmen rode, or resting in the gardens; all appeared to be males. These stared at them with expressionless faces but made neither sign nor sound to betray their feelings. There were no females, children or animals to be seen, and the travelers wondered if it could be possible that all the inhabitants were males. None of the creatures they saw appeared to do any work and still everything was spotlessly clean. Neither was there any indication of water that they could see, in spite of the fact that the atmosphere was entirely free from dust. Another thing that filled them with wonder was the fact that even when the sun disappeared from overhead the same mellow light prevailed. They looked for an artificial lighting system but there was nothing to indicate that the light was not natural. During the course of the ride, the sun appeared several times, but it was only visi-

ble for a short period. They could actually see it move across the zenith as they watched.

Several hours had passed when the vehicle stopped before a magnificent structure that was within sight of the enclosure, within which the rocket rested. The guide got out and the two men followed him into the building, in compliance with his unspoken request. They found themselves in a large room that was filled with a number of delicate-looking machines, all enclosed in transparent cases.

The guide turned to the two as they reached the center of the room and sent his thoughts into their brains.

"Holum," echoed in their minds, "as you now find it, is all that remains of a planet that was at one time almost twice as large as your own planet, Earth. At present it revolves nearly six thousand one hundred seventy-three times upon its axis in the time required to complete the circuit of its orbit around the sun. We have recently changed its orbit but I will explain it as your astronomers know it. To make it plainer, the time required for Holum to complete the circuit of its orbit was six hundred and forty-three of your days and the time of its diurnal rotation is two and one-half of your hours. But it was not always thus.

"Ages past Holum was nearly half again as large as your planet and at that time its orbit lay beyond that of Mars. The time required to make the circuit of its orbit was then a trifle over twelve hundred and fifty-eight of your days, and its diurnal rotation was twenty-eight and a half of your hours.

"At that time the planet was inhabited by as great a variety of life, as that which inhabits Earth at the present time. The dominant race, our ancestors, were beings much like yourselves. Mountain ranges, seas, lakes, rivers and plains covered the surface of the planet. There were many races of men and, in the earlier periods, continual strife. But when science had advanced to the point where war meant complete extermination for one and possibly both sides, universal peace was finally accomplished. Under the peaceful conditions that followed and also due to the great advance in medical science, the population increased at a rapid rate. A thousand years after war had been outlawed there was not a foot of wild land left upon the planet. Even the lakes and seas were thronged with floating cities. There was not a wild animal left and the tame ones became so scarce that meat was finally left out of the diet entirely. The cities spread out over the country, blotting out the farms and destroying vegetation so that soon all food was synthetic. Science was able to reproduce food products with mathematical exactness, but still there was an indefinable something lacking. The people did not thrive on the synthetic foods. Nevertheless, although the people were gradually growing smaller in stature, their span of life lengthened. Although the birth rate was very strictly limited, there still were a great many large families and it was not long before the planet became desperately overcrowded. Emigration to one of the less crowded planets was seriously considered and the inventors gave their attention to the perfection of space flyers, but, before anything could be accomplished in that line, something happened that drove all thought of emigration from the minds of all.

"It had been common knowledge long before this time that plant and animal life were complementary; every one knew that all animals breathed in oxygen and

exuded carbon dioxide, while the plants reversed the process. The fact that man had shown his ability to adapt himself to gradual changes of atmosphere, misled those who should have known better. They knew that the percentage of oxygen in the atmosphere had lessened considerably, while the percentage of carbon dioxide had not increased to any appreciable extent, but what they failed to realize was the fact that the great amount of carbon dioxide that was breathed out into the atmosphere was absorbed by the soil until the point of saturation was reached, after which the atmosphere began to fill with startling suddenness.

WHAT followed was far more terrible than any war in which the inhabitants had ever participated. People dropped in the street by the millions. Death was by no means painful, for the effect of the carbonic dioxide was that of a narcotic. The victims merely dropped off to sleep and failed to awaken, but the effect on the survivors was fearful. They dared not come down from the heights where they had taken refuge, even to bury the dead. The consequence was a terrible pollution. Disinfectants were sprayed on the corpses from above, but a great many deaths resulted from infection nevertheless. Before the situation was under control, over half of the entire population of the planet had perished.

"As soon as the trouble had been diagnosed, work was begun on numerous oxygen plants throughout Holum. These plants were designed to segregate the oxygen from the waters of the seas, lakes and rivers and pump it into the atmosphere. This greatly relieved the situation but there remained the menace of the carbon dioxide saturated ground and lower atmosphere. This phase of the problem was finally solved by planting large areas of land in vegetation of all kinds, but what appeared at first as speedy salvation, turned out to be a boomerang that left the populace in a predicament that was fully as acute as their first trouble.

"In the saturated ground the vegetation grew with a rapidity that was unprecedented: In an amazingly short time great forests covered the spots that had been extensive residential districts. This in itself would have given no trouble, but with the increase in plant life, came an overwhelming number of insects. They increased with such rapidity that all efforts to stop them were in vain. With the abundance of food and ideal living conditions, their size increased until many types attained an enormous size. Every method possible was tried to exterminate them but their heavy armor made them almost invulnerable. They became the masters.

"Hunted by these monsters, there was but one escape; beneath the surface. The populace at once began to dig, but escape, even in this direction, was anything but an easy task. Giant grubs followed them far beneath the crust. The jaws of these creatures even cut through the metal gratings that were erected to bar their way through the shafts that were left to provide air for the people below.

"There is no need to dwell further on the trials and tribulations endured by the people before safety was at last found. Suffice that they were finally able to exclude the insects by closing the airshafts after they had burrowed many miles beneath the surface. This was possible when a method was found to extract the oxygen from the lithosphere, which was composed of nearly

.forty-five per cent of the precious gas, in addition to the other elements.

"For several thousand years the people lived in comparative happiness and well-being beneath the surface. Science advanced with rapid strides. Tunnels ran everywhere and communication was established between the widely scattered communities. Food was both grown and manufactured in any quantity or variety desired. Amusements were provided and the people even lost the desire to see the outside world. Here there was no change in temperature. Night and day were practically the same as they had been on the surface, except that here the daylight was artificial and there was no reduction of temperature at night. Power was endless, derived, as it was, from the molten interior which lay but a short distance beneath.

"It was here that the present inhabitants of our little world were born. After thousands of years of experiment, science had succeeded in segregating the absolute elements of all substance and therein had discovered something of the secret of life. This discovery made it possible to prolong life indefinitely. Our atmosphere was cleared of all matter injurious to health; our food was carefully selected; our work was proportioned so as to give us the exact amount of physical and mental exercise required. Although greatly inferior in stature and physical appearance to our ancestors of the surface, we were healthy and happy. We had all the conveniences that they had enjoyed except, of course, that our scope was limited. Our artificial sunlight lacked the ultra-violet of natural sunlight and we acquired a pallid skin but we became adapted to the change and the loss did not affect our health. But as time passed, we were confronted with the same problem that our ancestors had faced on the surface; we were becoming overcrowded. Births had been strictly controlled but children were born surreptitiously and, as there were no longer any deaths, the population increased.

"Our cities or communities had all been constructed with a thick metal shell surrounding them. This was not only done to protect us from invasion from the insect inhabitants of the surface, but also as a protection from disturbances of the lithosphere. These were frequently close to the molten interior and our cities would have been demolished without such protection. As these shells had been constructed with great difficulty, the majority of the people did not want to face the task of enlarging them to provide room for increased population. It was decided, after much debate, that the population must not increase.

"The insect inhabitants of the surface were almost forgotten by this time; their existence had become almost legendary. In fact, nothing whatever was known of conditions upon the surface but we were soon to learn what was happening.

"Our first intimation that the insects still existed came when a grub, who was one-third as large as your rocket, one day cut his way through the shell surrounding one of the communities. The powerful jaws had cut through many miles of living rock and then through half his length of solid metal. He was speedily despatched, but others came in increasing numbers, and they soon overwhelmed us. Community after community was destroyed and the inhabitants devoured until only one center of life remained. That was the

one in which the present population of our little world, seven and one-half million beings, lived. That we also would have been destroyed is certain but for what you would perhaps call the intervention of Fate.

"There is only one explanation for what occurred. The grubs could have had no accurate knowledge of the location of our communities. They were in all probability merely burrowing straight downward and so great was their number that some of them were bound to hit our communities. But many more of them must have gone straight to the molten interior. Such enormous creatures must, of course, leave large tunnels behind them. It is apparent that once an opening was made to the molten portion, these tunnels would fill with hot expanding gases. When these gases met the atmosphere from the surface, a terrific pressure would be exerted against the walls of the tunnels, with but one result,

"The thing that happened was not as sudden as one might expect. Our community was shaken for several days. We did not know what was taking place. Then our shell began moving in a definite direction. At first the motion was comparatively slow, then it accelerated with ever-increasing rapidity, until we were moving at a terrific speed. No one knew exactly what was happening and momentarily we expected the end but gradually the acceleration lessened and we could discern no movement. However, a phenomenon, that at first was inexplicable, had occurred. If we arose suddenly, we flew out toward the shell for great distances to settle back to the solid center slowly. We had lost the gravitation that held us so firmly before.

"Our structures were honeycombed into the rocks. The largest open spaces were on the side that had formed the top of our shell, but the solid mass, at what had been the bottom, was braced against the shell at the top by thick walls of rock so there was no movement of the interior mass. We were afterward to find that this fact saved us from complete annihilation.

"All of our machinery was still intact and the people speedily adapted themselves to the new situation. We had food enough to last for several years so that we did not face immediate starvation. We set to work without delay to take stock of our exact situation and to prepare for whatever emergencies might arise. The first thing we did was to pierce the shell and the first puncture almost resulted in our end. Our atmosphere rushed out through the hole and had thinned considerably before the hole could be stopped up again. After this costly lesson, a vestibule was constructed and explorers ventured forth, protected by oxygen helmets. Their report left us dumbfounded. Our community was floating through space as a little world by itself. This was the first inkling we had of what had actually happened and it was sometime before we fully realized what had occurred. Not until a telescope had been constructed did we know the truth and then the knowledge almost overwhelmed us."

At this point there was a break in the line of intelligible thought from the creature, whom Prescott had mentally catalogued as the Erosian. Both men received a confusing mass of words in a strange language and waited breathlessly for a resumption of the recital in English. At last the Erosian seemed to notice his lapse and his thoughts once again became clear.

"WE discovered," resumed the being from Eros, "that Holom had broken up into millions of pieces that were hurled into space to revolve about the sun as separate units. For some reason, that we have never been able to fathom, our community had assumed an eccentric orbit of its own, while the other pieces followed the same orbit as the original planet. Our new orbit crossed the old one, as well as the orbit of the planet you call Mars, twice in each revolution about the sun, going far in each direction.

"It was not hard to reconstruct the catastrophe that had occurred. The terrific pressure of the gases against the walls of the tunnels made by the grubs undoubtedly opened great fissures in the lithosphere. As more openings occurred, greater quantities of expanding gases, with a correspondingly greater pressure, rushed from the interior into the new spaces. The start of the disruption was undoubtedly quite slow but the final rupture must have come with great force, for the parts were scattered very far. I told you that the rest of the parts follow the old orbit but that is only as to direction, for some have attained much greater speed than others and many of them are separated by great distances.

"Our people accepted the situation stoically and at once set about to reconstruct to meet the requirements. With the interior balanced and huge dynamos constructed, we were able to increase the gravitational pull from the center to any degree desired. We constructed the transparent covering that you see and after a time we began to live upon the surface almost entirely, only using the interior for our work. With the gravitation of our little planet under control, we have drawn much material from space; some of it being pieces of the original planet. As we crossed the old orbit on our own new orbit we were able to collect as much as we wished. Those bodies that once were part of the original Holom, your astronomers call the asteroids. We were in search of free bodies in this section of space, when your rocket was drawn to us.

"The material we secured in the manner I have mentioned we used for food and for experimental purposes. Much of it went to fill the interior of our planet and it is now almost solid."

"You say that you get food from the material you draw out of space?" McGuire asked, puzzled. "How in the world can you find anything to eat in that?"

"We ceased to eat as you do many centuries ago," came the reply. "Knowing as we do how to break up any substance into its basic elements, we are able to charge the atmosphere with all the elements necessary to life. Thus we absorb our food with the atmosphere. The atmosphere is continually cleansed and the so-called waste matters are broken up into their basic elements and used over again, so that in reality there is no waste whatever. It is because of our atmosphere that our plants have developed the properties that seem so peculiar to you."

McGuire was not yet satisfied. The whole story sounded so strange to him that he could hardly believe it.

"Do you mean to tell us," he demanded, "that all of these present have been living for the many centuries since the original planet was broken up?"

"Certainly," came the reply. "It is eighty thousand years since the catastrophe. As I told you before, we had learned the secret of prolonging life indefinitely long before that time. The youngest inhabitant of our present world is over ninety thousand years old."

The young man gasped and McGuire shook his head doubtfully.

"I see that you do not understand," came the Erosian's thought. "Your world is but in the infancy of knowledge. Your scientists have not the slightest knowledge of the basic elements. They have divined the existence of what they call atoms, and they are correct about the formations of these units, but the protons and electrons of these atoms differ as much as the planets of the solar system; as much as other solar systems differ from your own. The real basic elements are composed of much smaller units. What you term as an element is really a group of many elements so closely related as to be distinguishable only with the finest instruments. You do not know what electricity is. We know that there are many kinds of electricity, each kind having different elements in its composition. The protons of the units you call atoms are charged with positive charges of electricity, while the electrons are charged negatively. These charges vary in intensity and sometimes an electron is separated from its proton without outside influence, but usually it is outside influence that causes the separation. It is a simple matter to bring this outside influence to bear but I will not tell you how it is done, for the knowledge would disrupt the values of your world. Knowing this much it would not be difficult for you to understand how we are able to distribute life-giving substances by means of the atmosphere. Come and I will show you something that should prove interesting and instructive."

He led the way over to a contrivance beside which another of his race stood. As they neared the place, this one stepped behind a fluorescent screen. When they stopped before this screen, there came a soft humming from the contrivance behind it and the screen glowed.

"Watch," came the thought message from the guide, "and you will see a brain in action."

The screen began to lighten and presently they saw the Erosian's head outlined. The lines then faded away, seemingly spreading out to all sides. A gray mass appeared, then this too seemed to spread apart and they realized that the image was growing larger. Presently definite shapes began taking form. Groups of tiny orbs of all the colors of the spectrum appeared and grew rapidly in size until the whole took on the appearance of a great void filled with streams of universes which were in turn divided into countless solar systems. The solar systems revolved about each other and the universes in turn revolved about each other while they flowed across the screen. The watchers' astonishment increased when they saw that some of the tiny worlds were continually breaking away from their own system to fly to another where they would again follow an orbit about the new nucleus. Each time this occurred, there was a bright flash like a miniature explosion.

"What you are now witnessing," came the explanation from the guide, "is the action of the brain in thought; breaking down and building up of brain tissue. The miniature explosions that you see create vibrations that travel out into the ether. These vibrations cause identical vibrations within the brains of others in the vicinity. The effect of your thoughts upon one another is upon the subconscious mind, which we no longer have. Ages of training have so developed our minds that they are now entirely conscious. You can sense our thoughts when we wish, because we have developed the ability to think more strongly, thereby sending out stronger vibrations."

It was true that both Prescott and McGuire could ac-

tually feel the thoughts of the individual behind the screen, but they could not understand them, as they were in a foreign language.

WHEN the demonstration had been concluded, Prescott became aware of a growing pain in his stomach. It had been there for some time but he had been so interested, that he had paid scant attention to it. Now, however, it became so insistent that he mentioned the fact to McGuire and was surprised to find that the latter was experiencing the same feeling.

"Hunger pains," came the thought from the Erosian. "We absorb our food but you are not physically equipped to do so. You probably have no appetite but your stomachs are empty and they protest. It would be impossible for us to eat now, as our stomachs have atrophied long ago. It is the same with speech. We could not utter an audible sound if we wished, for the organs of speech have also atrophied from lack of use. If you have any food in your rocket, I would advise you to go and eat."

The two young men did as they were advised to do, but the food nauseated them and they were able to force but little into their stomachs. That little, however, relieved the pain and they were soon ready to see more of this wonderful little world and its still more wonderful inhabitants. Their guide conducted them back into the building in which they had watched the brain demonstration and led them to a flat topped table. The surface of this table was of some kind of transparent material. At an indication from the guide, they bent over it and focused their gaze on the center.

The transparent surface at first appeared to be filled with dark, swirling clouds, but it lightened gradually and at last the clouds cleared away. In the center a small dark sphere appeared and this grew rapidly in size until it filled the entire surface. Still it expanded and its own surface began to take on definite form. Lighted spots appeared, grew and again disappeared at the edge of the table. One remained in the center and soon the young men saw, to their astonishment, that they were gazing at the street lights of a large city. As the scene drew closer they could distinguish street cars, automobiles and even people upon the sidewalks. Still the scene moved closer until they seemed just above the sidewalk. Directly beneath them a man stopped and conversed with a lady. They could even see the lips of the couple move and almost expected to hear the sound of their voices.

"Lord!" gasped McGuire. "We must be looking at some city on Earth. Those people are white and their clothes are the same as ours but I can't make them out."

"Looks like one of the South American cities to me," Prescott replied. "Buenos Aires perhaps."

The scene began to recede and soon the surface of the table was again filled with swirling clouds.

"That was the most wonderful thing I ever saw," McGuire said emphatically, addressing the Erosian.

The Erosian replied in his speechless manner.

"Our recently developed ability to follow any orbit we choose makes that view possible. We were long dissatisfied with our eccentric orbit and strove for ages to find the means of changing it. We succeeded in finding that means and now we follow a new orbit that is nearly circular. Last year, as you would say, we arrived at that point of our old orbit that was closest to that of Earth; roughly speaking, at a distance of thirteen million miles from your orbit. We decided then to establish our

orbit at the same uniform distance from the sun as at that point. This enables us to study Earth, Venus and Mars with more facility than ever before."

"How long have you known that Earth was inhabited?" Prescott asked.

"Our ancestors knew that Earth was inhabited several hundred thousand years ago," came the reply. "They, and we ourselves, have watched the successive reign of different types of animals with interest. Your forbears, great shaggy creatures that were not far above the apes in apparent intelligence, made their appearance some time during our sojourn beneath the surface of Holum. The records of our ancestors, who lived upon the surface, do not mention any creatures resembling man other than great apes. But we of the present Holum have watched man develop on Earth with great interest. He had anything but an easy life in the early periods and several times he was nearly supplanted by the beasts, but his intelligence carried him through and he survived."

"Have there been any glacial periods since you first saw our ancestors?" inquired Prescott.

"Yes," came the answer. "Forty thousand of your years ago the ice crept down from the north, sweeping everything before it. It actually took more than two thousand years before the ice reached its most southern point and yet a great many animals, including man, perished. One of the most densely populated sections was in a great valley, wherein lay two large lakes. This valley, which was far below the level of the seas, was apparently very rich for a great many peoples dwelt about the shores of the lakes. Those at the western end of the valley were a wild, hairy race, whose only implements were rough stone ones. Those who dwelt along the northern side were not so wild and a little further advanced. They dwelt in rude houses built out on piles over the surface of the lakes. The southern side of the valley was inhabited by a wild black race, who fashioned their implements of bones and of the great teeth of enormous animals that they slew by trapping in great pitfalls. At the eastern end of the valley there dwelt a race of white people who were much further advanced than the rest. Their implements and weapons were fashioned from a metal, that our spectrographs told us was a copper alloy. They lived in houses built of stone or mud bricks.

"The western end of the valley arose abruptly in a steep slope. The summit was a high narrow ridge which formed a natural dam to shut out the sea. The ice reached this point by way of the sea long before it reached the northern edge of the valley overland. Apparently none of the peoples except a small group at the eastern end of the valley realized their peril and it is problematical if even these knew of the glacier, for they did not venture into the provinces of the wilder creatures, but the fact remains that this group was engaged in the construction of an enormous vessel at the time when the glacier was creeping upon the natural dam at the other end of the valley. Shortly before the catastrophe this group had boarded the vessel, taking with them a great many domestic animals.

"The glacier was extremely slow in its movement but not so with the sea. When the edge of the glacier pushed against the rocky barrier, it was held up for a spell, but when the millions of tons of ice from behind exerted their pressure, the barrier gave way. A great gap was gouged out and the sea poured into the valley. The val-

ley was completely inundated and apparently all life within its confines was wiped out, with the exception of the occupants of the vessel. The craft rode the boiling surging waters in apparent safety. As we were rapidly drawing out of position at this time, observation became difficult. When we again came into position for good observation, the valley was filled to sea level with nothing visible above the surface except a few mountain tops that now formed islands in the new sea."

Prescott and McGuire looked at each other in astonishment.

"Good Lord!" exclaimed the latter a moment later. "That offers an explanation for the legend of Noah's Ark! What do you know about that?"

Prescott slapped his hand on his thigh excitedly.

"By George!" he exclaimed. "You're right!"

He took a notebook from his pocket and tore out one of the pages. Upon this he drew a map of the Mediterranean, showing the adjoining parts of Europe, Africa and Asia Minor and handed it to the Erosian.

"Is that the place where the flood occurred?" he asked.

The Erosian took Prescott's pencil and placed the tip on the Straits of Gibraltar.

"There," came his thought, "is the spot where the ice broke through."

He then made an addition to the map, showing a locality which Prescott at once recognized as the valley of the Euphrates.

"The people in the vessel," came his message, "probably settled here, for shortly after the flood a number of cities appeared in this locality."

THETwo young men marveled at this strange being, but they could no longer doubt his great age and wisdom. They reasoned that he could never have learned of prehistoric conditions upon Earth except in the manner he claimed. They stood mutely staring at him with awe-filled eyes until their thoughts were interrupted by another message.

"As Holum requires but two and one-half hours of your time to rotate upon its axis, we will be directly in line with the planet you call Mars in a few moments. I suppose that you would like to see its surface."

Both young men assented eagerly and again focussed their eyes upon the transparent table top. Even as they looked the surface began to clear and they saw a small bright speck at the center. This speck grew rapidly, in fact it seemed to rush at them with a speed that it made them dizzy to watch. As the object grew larger, it took on a reddish hue, which deepened to a coppery red. When it had reached the apparent size of the sun as viewed from Earth, it presented a truly glorious sight. The dark markings upon the surface became momentarily more pronounced and soon large patches of dark color became visible. As the scene came nearer, they saw that these were low areas, covered with dark vegetation of a brownish tinge. Ravines, covered with the same brown vegetation, ran between great plateaus. These plateaus gave out the reddish glow that prevailed and soon they saw these areas were in reality great deserts of red sand. Upon them there was not a vestige of either vegetable or animal life.

The watchers now seemed to be directly above one of the ravines. Through the center ran a small stream of water in which they saw fishlike forms, but this appeared to be the only form of animated life in the

ravine. McGuire expressed his disappointment with a disgusted shake of his head, when suddenly both men leaped back with an exclamation of consternation.

"Phew!" exclaimed McGuire, then he grinned sheepishly at the Erosian as he realized what had occurred. The latter's face showed not the slightest change of expression, but his projected thought assured McGuire that he appreciated the ludicrousness of the situation.

An enormous winged creature had started up from the ravine floor to fly in their direction. So close had the wonderful mechanism brought them that it seemed the creature was about to fly into their faces, causing them to leap back.

At the instigation of the Erosian, they looked again and this time saw one of the creatures upon the ground. This one arose from the brown vegetation and waded into the stream and, as he came into full view, the watchers gasped in amazement. Never in their wildest flights of imagination had either conceived of anything as bizarre as the creature before them.

The monster appeared to be at least fifteen feet tall. He stood erect upon two enormous legs that supported a trunk that was slim at the waist but comically exaggerated at the chest. The lower parts of the legs were covered with a scaly substance, but the upper parts as well as the trunk had a covering that resembled both fur and feathers. This covering was very thick and of a color that matched the vegetation. Great wings, covered with the same substance as the trunk, sprouted from the broad back, while a pair of long arms projected from beneath the wings. The arms ended in hands equipped with long, wicked-looking talons. The watchers stared at the monster with mingled feelings of repulsion and awe, but when the creature turned its head so that it faced in their direction they received the shock of their lives.

The creature had a long hooked beak in lieu of a nose, but the rest of its features were distinctly human. The eyes seemed to stare at them with an uncanny intelligence. A high, bulging forehead was topped with a tuft of brown hair. The mouth was large but cruel-looking. A pair of ears projected from the sides of the head and tapered to a point. Suddenly the head turned sharply to the bushes at one side of the stream and the watchers caught their breaths.

Out of the bushes crept another strange monster. This one was as large as the other and also winged, but the enormous head was more like that of an eagle and it crept forward on four feet. As it came on, the wings were slightly elevated and the fur or feather on the back of its neck stood straight up.

Slowly the strange combatants neared each other until they were perhaps thirty paces apart. Then, at exactly the same moment, both elected to leap. They met in midair and the struggle that followed left the watchers cold with its ferocity. The two monsters bit, clawed and thrashed about with the quickness of cats. They arose into the air, rolled about on the ground, and thrashed through the waters of the stream. Blood spurted in streams and the water became ruddy. At last the monster with the human features gained the upper hand. His talons secured a death grip on his opponent's neck and there he clung while his sharp beak gouged the other's eyes out. The brute weakened and, although he struggled fiercely to the end, it was plain that he waged a losing battle. Suddenly the watcher saw the monster

with the human features raise his head high in the air; then, with the swiftness of lightning, he brought it down and his beak clove the other's breast like a sharp knife. A few convulsive struggles and it was all over.

PRESKOTT turned from the scene with a shudder and faced the Erosian.

"Are all of the inhabitants of Mars like that?" he asked with a grimace.

"Mars has now but few inhabitants," came the soundless answer. "Besides the types that you have seen, there are only the monsters that inhabit the dark patches: the dead sea bottoms. They are the descendants of former sea serpents. At one time the planet had a population as varied as any of the others but it is much older planet and it has cooled off to such an extent that it is now habitable only to the hardiest of creatures. We believe that the interior has cooled entirely. This would account for the loss of atmosphere for the moisture sinking into the lithosphere would become congealed. As the percentage of oxygen obtained from the ether is negligible, the percentage in the atmosphere would necessarily diminish. The sun keeps the moisture on the surface from congealing, except at the poles in winter, but, with no internal heat, there is constant loss. As birds of the eagle or vulture type are best suited to live in a rarefied atmosphere, only those creatures who acquired some of their characteristics were able to survive. The small fish in the streams are the only exception."

McGuire turned a ludicrously woe-begone face to the guide.

"Then there are no inhabitants of our type on the planet?" he asked, shaking his head dolefully. "How about the other planets? Do you know as much about them?"

"The planet you call Mercury," explained the Erosian, "is a dead world. It is to the sun as your Moon is to Earth. The same face is always toward the sun and is extremely hot, while the other side is always cold. The planet you call Venus is perhaps two million years younger than Earth and the present life upon it corresponds with the life upon Earth at the period of two million years before this time. Jupiter is younger yet and life upon it has hardly begun but two of its satellites are inhabited by intelligent beings. Saturn—I am using your names so you will understand—is in nearly the same condition as Jupiter: life upon it is in its infancy. Uranus and Neptune are still in a gaseous state and there is as yet no life upon either."

"Rats!" exclaimed McGuire. "The only place to go is to one of Jupiter's satellites and that's too far away."

"Hm," mused Prescott thoughtfully. "It looks to me as though we can't go anywhere. The explosions that are necessary to send us off into space would knock this little planet out of its orbit."

"You need not worry about that," the Erosian assured him. "It will not be necessary to use your explosive. All that is necessary is for us to withdraw our attraction for your rocket and give you a little start. Earth's gravitation will take care of the rest. That is, if you wish to return. If you would like to continue your journey, we have means of nullifying Earth's attraction so that you will come within the scope of the gravitational pull of any other body you wish. But you would have your own means of propulsion for the return journey."

"No, thanks!" McGuire burst out. "I've seen all I

want of Mars. Hereafter, I'll look for a princess on our own planet."

Prescott echoed his companion's sentiments, but he was lost in thought on another matter for a few moments. He was thinking of how different the ugly, misshapen dwarf, who had been their guide, appeared now. The kindly courtesy of the Erosian had won his heart to such an extent that he no longer appeared repulsive. Prescott felt loath to part with him.

"Why don't you make the journey with us?" he asked in thought. "Your knowledge would make you the greatest personage on Earth."

The Erosian's face came the closest it ever had to showing expression and he actually shook his head; the first gesture the adventurers had ever seen him make.

"You forget," came his reply, "that I could not live as you do. It would be necessary for me to live in an enclosure where I could absorb the necessary elements as we do here. Besides, it is not a light thing to part with friends one has had for nine thousand years. You must make your return journey without me, but, any time you desire to visit us again, you can be assured that you will be welcome."

He took each of the young men by the arm and steered them to the enclosure where they found, to their astonishment, that the rocket had been turned around and was now headed outward. As they paused beside the rocket, Prescott turned and held out his hand.

"Friend," he said a little hoarsely, "I don't know how to thank you for the kindness you have shown us and the wonderful information you have given us. If I could offer any assistance I would be glad to do so, but such an offer would be ridiculous. I only wish that we could prove our gratitude in some way."

At this moment a bell tinkled overhead and the Erosian pushed the young men toward the rocket.

"Get in," came the command. "Your planet is in line." He turned and, an instant later, disappeared through the door of the partition.

Prescott and McGuire climbed into the rocket just as the panels overhead swung open.

"A remarkable race indeed," observed Prescott. "What are we going to call them?"

"That's easy," McGuire replied quickly. "There's only one name for those birds and that's 'The Sages of Eros'."

* * *

Great black headlines fairly stood out from the front pages of the daily papers throughout the world heralding the return of the two young adventurers who had landed safely in Lower California. The astonishing story of their sojourn on the planetoid Eros, with the equally astonishing history of the planetoid's inhabitants, was wired to the leading newspapers of the world. The adventurers themselves were hailed everywhere with acclaim and feted as the greatest heroes the world had ever known.

Then came a reaction. The public, led by the scientists, divided into two groups: one faction that believed in the young men and another that branded them as mere notoriety seekers. The latter were in the majority until Professor Foster of the Mount Wilson Observatory made his announcement. As the professor was regarded by many as the world's leading astronomer his word carried much weight.

The announcement stated that the change of the plane-

(Continued on page 1034)

The Racketeer Ray

By Murray Leinster

Author of "The Runaway Skyscraper," "The Power Planet," etc.

THERE are two sides to every question and those things which are created to give the greatest benefit to mankind might, in the hands of unscrupulous persons, with minds as brilliant, in their way, as the creators' own, be turned, just as effectively, to the destruction of life and property. Modern science, as we have already seen, aids not only in standardizing and mechanizing living and industries, but it adds to the greater possibilities of racketeering and gangsterdom. All that happens in this highly original scientific fiction novelette by Murray Leinster comes to pass quite unexpectedly, and what to do about it remains the question almost to the very end.

CHAPTER I

TONNY GARLAND scraped a wire and made a last attachment to a battery-lead, and then stood still and checked over what he had done. He was in the cabin of the *Susan Carter*, a stubby and unlovely workboat some thirty-five feet in length. The air he breathed was redolent of tar and salt water and copper paint, and the other fragrances natural to a small-boat harbor in New York Bay. The cabin contained an antique anchor, a sword-hilt of elaborately worked brass—coated with green verdigris—and a number of queer objects that belong normally at the bottom of the sea. But besides those, it held a contrivance that looked like a machine-gun made out of copper.

It was the last device with which Tommy was working. It stood on a stout wooden tripod and its resemblance to a machine-gun in shape was obvious. But no machine-gun ever made was built of gleaming copper, nor had wide bands of black bakelite at intervals along its length. And certainly no machine-gun was ever studded with little glass disks or was electrically connected to an impressive bank of storage batteries.

Discarded on the floor was a litter of dry cells, a micro-ammeter, and a tangle of wires. Now Tommy had four electric lamps connected in parallel across a pair of wires. He had just made the last connection to the main battery-bank, and the four lamps were burning brightly. He nodded to himself, put his hand on the trigger of the copper contrivance, and was about to press it when someone stepped on board the *Susan Carter* from the dock.

"Joan!" called Tommy. "Come here!"

The footsteps tapped nearer and Joan Sharpe came in.

She was very pale, but Tommy did not notice it. "I've finished the Hall Effect tests," he said excitedly, "just as your father wanted them. The result's incredible, Joan! Look!"

She opened her mouth to speak, but he forestalled her. "First, though, look at the new sight I put on! Just like a gunsight. Watch this, Joan!"

He picked up a handful of corks with a carpet-tack stuck in each one. He flung them through the open window some twenty feet out on the water. They bobbed there on the tiny harbor-waves.

"The right-hand one," said Tommy briskly. "Now!" He pressed the trigger on the copper contrivance, sighting along its length. And fully twenty feet away, a cork foamed through the water, leaped into the air, and shot in through the window to come to rest with a "click" upon the end of the copper mechanism. Tommy released the trigger. A red glow vanished from the glass disks and the cork dropped to the floor.

"The left-hand one!" said Tommy.

Again a touch on the trigger, a glow inside the copper-and-bakelite cylinder, and a cork foaming through water, soaring through the air, and coming to rest with a click. With the trigger held down, he swung the apparatus to and fro as one might swing a machine-gun. The floating corks leaped madly through the intervening distance and heaped themselves about the end of the copper barrel. The pink glow went out and they dropped. "Tommy—" began Joan queerly, but he paid no heed.

"That gunsight's worth having," said Tommy enthusiastically, "but now look at this!"

There were four electric lights burning. He swung the copper thing about, aiming at one of them. The pink glow appeared. One of the burning bulbs went out. He

Illustrations by MOREY



"I've finished the Hall Effect tests," he said excitedly, "just as your father wanted them. The result's incredible, Joan! Look!"

LEONMOREY SF.

shifted his aim. The first bulb relighted instantly. Another one went out. In succession, as he pointed the gunsight at the bulbs, they ceased to glow while it was pointed at them. Then with a gesture of triumph he seemed to aim at a wire instead of a bulb. Two lights went out, then three, and then all four. He released the trigger, the pale glow went out, and all four bulbs relighted instantly.

"The Hall Effect!" he babbled excitedly, "we've got it tamed! Any magnetic field keeps a current from flowing in the shortest line through a conductor. The line of current-flow is twisted through a few degrees. But your father's magnetic beam twists it through a hundred and eighty degrees! Turns it back on itself! Anything this magnetic beam plays on is a non-conductor, Joan! Think of it! This beam can reach ten miles or a hundred or a thousand, and shut off a current anywhere. . . ."

Joan was very pale indeed. She said:

"Tommy—Dad—"

For the first time, Tommy Garland really looked at her.

"What's the matter? What's happened?"

"Dad's arrested," said Joan shakily.

Tommy's face went blank. Not with the blankness of alarm, but of sheer bewilderment. Professor Sharpe, Joan's father, was a physicist of rather more than national reputation. Three months before he had resigned his professorship in Harbord University to utilize a discovery of his own in a highly original—not to say eccentric—fashion, but there was nothing illegal about it. He had kept it secret for perfectly sensible reasons. There was assuredly no conflict between his activities and the law.

"Arrested?" said Tommy blankly. "What for? It's a mistake. . . ."

In silence, Joan handed him a folded newspaper. Tommy stared at it.

"KING BURK CALLED PUBLIC ENEMY.
Racketeer denounced by clergymen. . . ."

He shifted his eyes. That wasn't it. King Burk in New York was like Al Capone in Chicago; always denounced but never disturbed in his strangle-hold on the rackets of the city. Tommy searched. . . .

BANNED WEAPONS ON SALE

"'Professor' James E. Sharpe, who refuses to give his address, is in the Tombs on a technical charge of vagrancy, and there is turmoil in Police Headquarters. The 'Professor' was arrested as he appeared at Mann and Banner, dealers in obsolete and not so obsolete weapons, with a suitcase full of unserviceable firearms and unusual weapons. The arms were useless except as curios, but the police are interested because they are, without exception, weapons confiscated by the police during the past year and thrown overboard in two thousand feet of water some three weeks ago."

"'Professor' Sharpe made his first sale of these curios several days ago. A detective recognized some of the weapons on display in Mann and Banner's window. When the 'Professor' appeared with a second lot for sale, he was arrested. It is unquestionable that the weapons were thrown overboard according to law, in

water nearly half a mile deep, and that there is no known way in which they could be recovered. But it is also unquestionable that they have been recovered. The 'Professor' says he salvaged them, and has a legal title to them. The police are holding him on a technical charge of vagrancy, admitting that as far as they know he has committed no crime, but insisting that when guns are thrown overboard according to statute they must stay overboard, and demanding that the 'Professor' tell them how he got them up. The 'Professor' refuses to talk except to demand his liberty, and is getting madder by the minute."

Tommy put down the paper, looking more blank than before.

"Good Lord!" Suddenly he managed to grin. "He must be furious! I'll go over and get him out."

"Can you, Tommy?"

"Of course!" said Tommy confidently. "I'll see him, then get a lawyer, and he'll have to be admitted to bail. Of course. I'll go dress up. Don't worry!"

Whistling he went off to dress. Now and again he grinned ruefully to himself as he struggled with his garments. Professor Sharpe had at least a national reputation, and he had made an invention which would quite certainly write his name large in the history of science, and for lack of capital the only way in which he could use his invention was almost ridiculous. He and Tommy and Joan had spent two months on the *Susan Carter*, utilizing one of the most startling discoveries of modern science in a very prosaic fashion for the retrieving of junk from the bottom of New York Harbor and Long Island Sound. True, in two months they had earned ten thousand dollars. With better equipment, in two months more, they would run that up to fifty thousand, and in a year—as they were able to use their earnings for better equipment still—they should verge upon the millionaire class and term their operations salvaging instead of junk-recovery. But in the meantime Tommy grinned ruefully, and made himself presentable, and went out to find Joan ready to accompany him and in the act of presenting a five-dollar bill to the boat-harbor watchman.

"Sam's going to watch the boat," she told Tommy. "I'm coming with you. I can manage Dad. You can't!"

"But—your father insists that somebody has to be on the boat all the time! We don't want anybody poking around the projector!"

"Nobody dreams there's anything worth looking at on this tub," said Joan, "and no prowler could make head or tail of the projector anyhow. And besides, Tommy, I'm worried!" She managed a smile, but it was a faint one. "I know Dad ought to be safe enough in jail, but—I'm afraid he isn't!"

There was no answer to that, but Tommy was increasingly disturbed to see that the nearer they got to the center of the city, the more uneasy Joan seemed to get. When they reached Police Headquarters, she was white as a sheet. When Tommy had made the necessary inquiries for locating Joan's father, she was trembling. And while waiting for permission to see a prisoner, Joan said uneasily:

"Tommy, I've got a hunch that something has happened to Dad. Something—serious! There's something terribly wrong!"

A uniformed man approached and beckoned imperiously. They followed. But instead of going to a cell

or a reception-room, they were led to an office. A man in the uniform of an Inspector of Police looked up at them keenly and motioned toward chairs.

"You two were asking for a prisoner who called himself Professor James E. Sharpe. What have you to do with him?"

"I'm—his daughter," said Joan. "Is he—all right? I'm afraid!"

The inspector stared at her for an instant. His manner changed.

"You look like him, Miss Sharpe. Yes, he should be all right, I think. But why are you worried? Is he—unbalanced?"

Tommy made an impatient movement.

"Hardly!" he said dryly. "He's probably the most brilliant physicist in the United States. Until three months ago he was professor of advanced physics at Harbord University. He worked with Millikan on several problems—"

Inspector Holliday slammed his hand down on his desk.

"That's it! Of course!" he said irritably. "I couldn't remember! I knew there was something! Some idiots tried to third-degree him and he grew furious and refused to talk. Wouldn't add a word to his name! And I couldn't place it. It's a bad blunder!"

"I'd—like to see him," insisted Joan uneasily. "I'm—worried!"

THE Inspector lifted his telephone and spoke curtly into it.

"So am I," he said in sudden grimness. "Look here! Did he actually get those guns up from two thousand feet of water?"

Tommy nodded.

"How did he do it?" As Tommy hesitated, Inspector Holliday said shortly, "I'm not trying to pry into any secrets. But this may be important. What was the general idea?"

Tommy said carefully:

"A broadcasting station transmits what you might call electricity in the form of waves which spread out like enlarging bubbles. There are also beam-transmitters, which send out electricity in a series of waves arranged practically like the leaves of a book. Professor Sharpe has devised a transmitter which sends out electricity in waves arranged practically like a spiral spring."

Inspector Holliday moved impatiently.

"But what has that to do with getting guns up from two thousand feet of water?"

"According to the Professor—and it works—" said Tommy, "those waves act like a current revolving around a core. Like a solenoid with an electric current flowing through it. In effect, those spiral waves are an electromagnet, as long as the waves have traveled."

The Inspector stared at him.

"You mean it's a beam of magnetism, projected like a searchlight?"

"A beam," corrected Tommy, "which is itself a magnet. The Professor sends that beam down through the water. When anything magnetic is touched, we feel the pull on the projector, which is the other end of the beam. And the beam pulls the magnetic object up. We've been using it for two months, salvaging junk from the bottom of the harbor and the Sound. We've sold the junk, and have been planning to build a bigger proj-

ector and try raising some small sunken vessels. Ultimately, the Professor considers that we will be a marine salvage corporation, able to raise any sunken ship from any depth of water. The present projector won't handle more than a few hundred pounds. And now, may we see the Professor?"

The Inspector said grimly:

"I said there was a blunder. Professor Sharpe refused to give more than his name. He was held on a technical charge of vagrancy and put in a cell with a couple of other men. One of them was one of King Burk's guns. He was bailed out this morning. Evidently, the Professor had talked to him to some extent."

"King Burk, the racketeer boss?" demanded Tommy sharply.

"Just so," said the Inspector. "Three hours ago, Burk's lawyer, 'Little Angie,' came in with cash bail to put up for Professor Sharpe. Bail couldn't be denied. We'd nothing to hold him on. He'd committed no crime. He left the Tombs with 'Little Angie.'"

Joan went pale.

"But—what would King Burk want with my father?"

"Nothing," said the Inspector grimly, "but he could use a magnetic-beam projector! I could, if I were in King Burk's business!" He stood up. "There's a police car down below. I'm going with you to the place where you store that projector of yours. You can dismantle or seal it up. I don't care. But it's clear that King Burk wants it, and it's equally clear that he mustn't have it! It's too dangerous a thing to get into wrong hands. Meanwhile I'm going to send out a general alarm for King Burk and for your father, Miss Sharpe. I don't what to jail your father. I want to protect him from Burk's—er—methods of extracting information. He's entirely too progressive. He's already used tear-gas against racketeer rivals."

Joan was deathly white. She looked terrifiedly at Tommy. And Tommy was seeing things—many things. It would be like the Professor to explain to a fellow-prisoner that he had brought up jettisoned weapons by a magnetic beam that ranged two thousand feet or more. He would see no harm in such a statement. But when such information was passed on to a progressive gangster-leader, and confirmed by the newspaper clipping Tommy himself had seen . . .

"We're with you," said Tommy briefly. "I see the danger now. And we'd better hurry back to the ship."

It took less than ten minutes to have the general alarm on all the multiplicity of instruments which broadcast urgent orders to the uniformed police of New York City. It took less than five minutes to have men departing swiftly from Headquarters to round up King Burk, and even to arrest "Little Angie" and bring him in for questioning as to the present whereabouts of Professor Sharpe. But even before those raiding-parties had started for King Burk's known hangouts, Joan and Tommy and Inspector Holliday were racing toward the nearest bridge across the East River, with the police siren going. By virtue of that siren they made such speed as no civilian ever manages in New York traffic. They took thirty-five minutes and no more to reach the boat-harbor two-thirds of the way out to Coney Island.

The police car squealed to a stop. The *Susan Carter* still rested at her moorings, dumpy and unattractive to look at and not at all remarkable to the eye. Tommy breathed a sigh of relief. But Joan uttered a little cry.

"There's a window broken, Tommy!"

They went swiftly then. Sam, the watchman, did not appear. The door of the cabin was unlocked—and Joan had locked it carefully. Tommy pushed it open and went quickly inside. There was a wreckage within. The projector was gone. The whole place had been ransacked. Lying on the floor, with blood oozing horribly from his ears, the watchman lay with his skull crushed in.

"D-dad's been here, too," said Joan in a choked voice.

She pointed to the floor. A felt hat, crumpled up, lay under an overturned chair. There was a tiny smear of blood on that, too. When Joan saw the bloodstain, she fainted, and Tommy was glad of her unconsciousness when they found the Professor lying on a bunk, his eyes glassy, breathing stertorously, with a gash from a blackjack on his temple.

CHAPTER II.

IT was three o'clock in the afternoon when the Professor was found unconscious with a fractured skull, and the magnetic-beam projector stolen with all of the Professor's notes. It was four o'clock before a hospital reported that he would be unconscious at any rate for days, and that he might or might not recover. And it was five before the last report was in from the last hideout in which King Burk might have been expected to be found. He was missing. With him had vanished at least a dozen of his more prominent henchmen. Even "Little Angie," the bland and celebrated criminal lawyer, had dropped from sight as if he had crawled into a hole and pulled the hole in after him.

There was nothing to be done. There was nothing that could even be planned. Tommy took Joan to a hotel and got a trained nurse to stay with her, because her father's wound and the ghastly sound of his breathing had filled her with terror that threatened to shatter her nerves. Tommy, himself, conferred with the Inspector and set to work on the plans and sketches the result of that conference called for. And nothing happened.

All over the city there was a quiet but extremely busy search going on. For King Burk. For associates of King Burk. For hangers-on of King Burk. Finally even for enemies of King Burk, who might know of some hideout yet unsuspected by the police. The impetus was the clear-sightedness of Inspector of Police Holliday. He saw from the first the danger inherent in criminal possession of a contrivance like the magnetic-beam projector. Even he did not see the whole danger, but the city was combed for King Burk and the projector as thoroughly as it was once combed for the missing heir-apparent to a certain foreign throne, when the said heir-apparent was seeing the town on his own. Every uniformed man on duty and every plain-clothes man at work was reminded at every report of the necessity of locating either King Burk or a contrivance that looked like a machine-gun made out of copper.

But nothing happened. Nothing happened at all, until eleven o'clock. Then a patrolman in a remote precinct in Brooklyn was found dazed and with his uniform in shreds. He had been slugged. His quite impossible story was that a truck had rumbled past him, and suddenly he was spun about by an irresistible force and his revolver torn from him, ripping his uniform. His metal buttons whose base was steel, his badge, even his

pen-knife and key-ring had torn a way out of his clothing. In the process he was flung off his feet. While hopelessly dazed on the ground, he heard the truck stop. Someone came over to him and slugged him casually with a blackjack. That was all he knew.

Shortly after midnight a motorcycle policeman was found unconscious, his mount twisted to wreckage and his uniform also torn crazily by the departure of buttons and weapons from his uniform, and small iron and steel objects from his pockets. The steel parts of the wrecked motorcycle were magnetized.

Between one and two o'clock three plate-glass windows in the Bronx were smashed. In each case clearly visible cash-registers in small places of business were missing. They had been thrown or dragged from their positions and flung through the glass. In one case the drawer had come open and scattered small coins over the sidewalk. The thieves did not stop to pick up the coins.

From then until three o'clock reports came in steadily. Policemen, in all cases, were the victims. In all cases they were stripped of their weapons and usually of a number of steel buttons. On one or two instances they were left with no single article of magnetic metal about them. In one case at least, metal springs inlaid in arch-supporting shoes pulled out the soles of a patrolman's footwear and left him barefoot as well as in rags.

Then the reports ceased abruptly.

Tommy Garland worked feverishly through the night. Twice during the small hours Inspector Holliday dropped casually into the smoke-filled room. Tommy desperately drew sketches, and made calculations, and drank coffee, and at intervals worried about Joan, until he slipped down the hall and saw the trained nurse, who assured him that Joan was sleeping soundly after taking a bromide.

Tommy was just returning from such a trip when the Inspector turned up the second time.

"She's guarded," said the Inspector briefly. "So are you. King Burk's gangsters are trying out the Professor's projector, and they're raising hell. Look at these."

He tossed a sheaf of flimsy tissue-paper reports on the table where Tommy worked. Tommy read them.

"That's the projector, all right," he said grimly. "We never thought of any such thing as this, of course. It means the police force is disarmed, doesn't it?"

"Partly," said the Inspector calmly. "But only partly. How much pull has that magnetic beam?"

"We've lifted six-hundred-pound masses of stuff from the harbor-bottom," said Tommy.

"What's its range?"

"According to the Professor, infinity. The beam doesn't spread. Actually, I don't know. We've used it in water two thousand feet deep."

"Six hundred yards.... In a city that means as much as a gun. Can you insulate against it?"

"There's nothing known that will insulate against magnetism."

"We've got to do something," said the Inspector. "How about that design?"

"I've reached the point where I'm guessing," said Tommy frankly. "You must remember that I'm going at the thing backward. I've seen the projector and worked it and I know the theory, roughly. But the Professor was the brains of the firm. There are details I can only guess at. In any case it will take weeks to build a projector, and more weeks to make it work."

The Inspector nodded.

"We'll see. You'd better get some sleep now. And give me an assortment of those sketches of yours. They won't be used unless King Burk gets you. Then they'll be something to go on."

"If King Burk—"

"He knows, of course," said Inspector Holliday patiently, "that you're more likely to be dangerous to him than is anybody else. He considers the Professor practically a dead man. So he'll try to get you. Miss Sharpe, too."

"I want a gun!" said Tommy firmly. "And I'm going to camp outside her door...."

The Inspector laid down a curious device on the table. It gleamed dully of brass.

"Here's a Very signal-pistol," he observed dryly. "We got a couple of hundred of them from Mann and Banner. They were used to shoot off signal-lights, originally. The barrel is brass. It's been bored out to twelve-gauge calibre and it's loaded with a buckshot shotgun shell and it won't be attracted by that beam. The guard around you and Miss Sharpe is armed with them. I think that much is all right. You'd better get some sleep."

HE went out. And Tommy stared at the clumsy weapon on the table and something approaching confidence came to him. He might not be able to reproduce the magnetic-beam projector to fight King Burk directly, but there was at least a chance of succeeding without it, while brains like this were on the job. In any case, with weapons the beam wouldn't affect in the hands of her guard, Joan was safe....

Tommy fell abruptly asleep, toppling forward on the table at which he had been working. The electric light burned unheeded beside him until it was dimmed by the pale light of dawn.

And that dawn, of course, was exactly like a myriad others. There was three plateglass windows broken in the Bronx, and there was one twisted police department motorcycle, the engine of which could not be made to run because every steel part was magnetized, and there were a number of sore and battered and dazed policemen, still unable to understand just what had happened to them. But that was all. There were probably not more than half a dozen men, on the side of the law or against it, who realized just what was really likely to happen, because one single, rather complicated device had fallen into the hands of criminals.

But that day being Saturday, at ten o'clock precisely, the cashier of the Bellipheron Garment Works came out of the National Manhattan Bank with fifteen thousand dollars in currency in a small satchel. With him was a guard, of course. The satchel was steelbound and locked, and it had two handles, and he held fast to one handle and the armed guard held fast to the other. They moved across the sidewalk toward a waiting motor-car.

A heavy truck rumbled past. And suddenly, without warning, the steel-bound satchel stirred, and swung out stiffly at arms' length away from both men. It seemed drawn by an irresistible force toward the moving truck. The cashier's hold upon its handle was broken. The guard clung desperately, trying to draw a weapon. The force drawing the satchel seemed to redouble suddenly. It dragged the guard off the sidewalk and out into the street. It toppled him off his feet....

A shot rang out from the truck and the guard collapsed. The truck put on speed. The cashier of the Bellipheron Garment Works shrieked. He had seen the bag with the payroll move magically into the open back of the truck, darting in there as if upon wings. A policeman either had not seen that, or he had not believed his eyes, but he had seen the shot. He leaped upon the running-board of the nearest car with his revolver drawn, ordering pursuit of the now-fleeing truck. He got in two shots, and suddenly was wrenched off the running-board as his weapon was jerked from his hand. It flew with incredible speed into the back of the truck. The driver of the commandeered car jammed on his brakes. And his motor stopped with an ominous suddenness.

The shots had created a panic. Pedestrians fled to cover, but bank-police fought their way out of the building. The still-screaming cashier pointed, gibbering, to the moving truck. One bank policeman raced out into the street to open fire. His gun flew from his hand and he was shot down with a sardonic coldbloodedness. The other man, perhaps dazed or perhaps unable to believe his own eyes, stood stupidly in plain view of the truck. And suddenly his uniform seemed to burst into ribbons about him. Buttons, stray objects in his pockets, even the metal buckles of his suspenders and garters tore their way out through the cloth. There was a pandemonium of blaring horns, and suddenly a crazy shrieking of motors seeming to be abruptly drained of oil. Automobiles stopped, with smoke issuing from beneath their hoods. Traffic for one block, for two, for three, was left tied up in a hopeless tangle of inoperable vehicles. Every motor was overheated and seized by the magnetization of its steel parts.

The truck rolled cumbersomely away. It turned down a side street and vanished.

That was at ten o'clock. In five minutes there were motorcycle policemen combing all vehicular exits from that section of the city for the truck. They found it. Two motor-bike patrolmen, dodging in and out of traffic with their sirens screaming and motors popping, found a monster van that answered the description of the hold-up truck. The account of what happened to them reached Police Headquarters twenty minutes later. Both of them were dead. Both of them had been stripped of their weapons and all magnetic-metal objects upon their persons. Both of them had been shot down in cold blood by marksmen, apparently confident of entire immunity. There was again a section of traffic three blocks in length deprived of all power of movement. And the truck had vanished.

At three in the afternoon, the truck was found abandoned in a narrow alleyway in the garment-manufacturing section of town. It had been stolen the evening before. But by that time the police were not even looking for it.

Because at eleven o'clock a pair of Wall Street messengers, carrying one hundred thousand dollars in negotiable securities, had essayed to cross Broadway at Wall Street. They carried the securities in a double-handled bag, steel-reinforced. One of them had, in addition to his grip on the bag, a strap through the handle about his wrist. As they moved through the crowd of pedestrians on the sidewalk, the bag stirred in their grip. Then it rose vertically in the air, drawn upward by an invisible but seemingly invincible force. One of the two messengers cried out with the pain of a dislocated arm and



Four stories from the pavement the twisting blend of hurtling man and dropping bag checked suddenly. Again the bag strained upward.

sank in a heap on the sidewalk. The other was lifted in the air as the bag rose mysteriously upward. He was dangling from the satchel by the strap about his wrist.

He soared swiftly upward, invisibly seized. Five stories up, ten. . . . He wavered in mid-air, and then man and satchel alike dropped like stones toward the pavement. It was all so incredible that those who did see the thing remained utterly frozen. Some few saw the figure hurtling downward who had not seen it rise. Those few thought "*Suicide!*" as their hearts stood still in horror. But it was worse than a mere suicide.

Four stories from the pavement the twisting blend of hurtling man and dropping bag checked suddenly. Again the bag strained upward. . . . For one instant the man hung still in mid-air. A thin, small cry echoed in the man-built cañon of lower Broadway. Then the bag flashed upward to invisibility, though some claimed that it darted into a twentieth-story window. But the man dropped. . . . And this time there was nothing to stop his fall. Very many people fainted when the horrible sound of the impact echoed between the same grim walls, which a little while before had echoed his cry of pain.

There was one more use of the magnetic beam before noon put an end to all banking activities. In all respects it was similar save that the loot was considerably more than one hundred thousand dollars. So that within twenty-four hours after the magnetic-beam projector fell into King Burk's hands, four men had been killed outright, a number more injured, King Burk was a quarter of a million dollars richer, and there was as yet no sign of any headway against the continued menace the magnetic projector constituted.

CHAPTER III

THREE was a rather grim gathering in the office of the Commissioner of Police at one o'clock. Inspector Holliday, and Tommy Garland, and Joan Sharpe were closeted with the Commissioner. There were newspapers strewn about the room. The Commissioner drummed on his desk.

"Well?" he said bitterly. "What now? I'll admit, Inspector, that I thought you were wrong yesterday in turning the city upside down in a search for King Burk. But last night's developments were alarming, and I gave you a free hand today. Yet your precautions have done no good whatever. There's a quarter of a million dollars stolen. What's going to be done?"

The Inspector said drily:

"We're going to get King Burk."

"How?" demanded the Commissioner.

"Various methods are in preparation," observed the Inspector. "Mr. Garland is drawing, as well as he can, plans for the duplication of the magnetic-beam projector. When one is completed, we shall study it and find its weak point—how to fight it directly. Meanwhile we are tracing the man who rented the twentieth-story offices from which the beam was used today. And at Mr. Garland's suggestion, I have asked for hand-grenades from the Federal Government, and they will be distributed to banks and clearing-houses, to be used—"

"Hand-grenades!" said the Commissioner of Police, aghast.

"Just so," said Tommy calmly. "King Burk is working with gunmen. And your gunman thinks of his own skin. As soon as the grenades are delivered, the news-

papers will announce their intended use. Every payroll, every parcel of negotiable bonds, in fact every object which it would be to the interest of King Burk to steal, will be moved only with a hand-grenade attached to it. Police at various points will carry hand-grenades. And the motorcycle police, charged especially with the location and capture of any truck carrying the magnetic projector, will have hand-grenades in their belts."

"Which," snapped the Commissioner, "will be taken from them with their revolvers!"

"They will be drawn to the magnetic projector," corrected Tommy. "And they will explode on striking it, or whatever screen is used to check the objects the magnetic projector draws toward itself. In fact, they should destroy the projector. I think the newspaper account will have a desirable effect."

The Commissioner stared, and then relaxed.

"But why announce it to the newspapers? Why not spring it as a surprise, and blow King Burk to hell and gone?"

"Because," said Inspector Holliday mildly, "the projector is used in crowded streets and we can't take the responsibility of setting off hand-grenades in New York streets at any time. We'll be putting across a bluff, sir. We have to!"

Joan said nervously:

"And—my father's projector—

"Is the cause of all this?" The Commissioner of Police went into something near a passion. "Men of science shouldn't invent such things! Here are four men killed and a quarter of a million dollars stolen! The Police Department has been made ridiculous! Confound it, men of science shouldn't invent such things!"

Inspector Holliday's eyes roved and met those of Tommy Garland. There was a glint of sardonic amusement in them—such amusement as a member of the force may feel, but not express, concerning that civilian political appointee, who is the Commissioner of Police of the City of New York.

"We are working, sir," he said calmly, "to locate King Burk. Sooner or later we will manage it. Meanwhile Mr. Garland—"

There was a rap on the door and the Commissioner's secretary fairly burst into the office. He ignored the Commissioner's indignant frown.

"Sir!" he stammered. "Little Angie, King Burk's lawyer, is—is asking to see you!"

Inspector Holliday whistled softly. The Commissioner's mouth dropped open. Tommy Garland's eyes gleamed. Joan clasped her hands, her lips twisted by the sheer mention of the man who had led her father into injury or death.

The Commissioner closed his mouth again.

"Show him in!" he snapped. "Meanwhile get ready to arrest him as he leaves."

He settled himself at his desk as if preparing for a battle. Tommy Garland regarded his knuckles reflectively.

A fat man with a double chin and a flower in his button-hole tripped in the door. He beamed upon these assembled and said heartily:

"How-de-do, folks! Commissioner . . . Inspector. . . . The little lady must be Miss Sharpe. I've got good news for you, lady. I was mighty sorry to hear about your old man, but if the Commissioner will help my client a little bit, we'll get the guys that bumped him off."

He beamed more widely still and moved a chair to a more comfortable position. He sat down with an appearance of ebullient good-humor.

The Commissioner said between his teeth:

"You're under arrest! I'm going to have you disbanded if it's the last thing I do on earth! And if you don't go to the pen, it won't be my fault!"

Little Angie was in the act of striking a match to light a thick black cigar. He halted, blew out the match, put the cigar in his pocket, and rose.

"All right," he said with dignity. "Show me to my cell, please. I haven't got anything to say. Not anything at all!"

Tommy Garland stood up.

"But I have something to say—and do," he said softly.

Inspector Holliday's eyes were glinting amusedly. The Commissioner was turning purple with fury. Tommy Garland went over to the fat man, swung with apparent gentleness, and Little Angie went reeling across the room to crash against the wall.

"This," said Tommy deliberately, "is something I've been wanting to do for a long time."

He followed Little Angie up, swung him about, and tapped him again with his fist. Again the little fat man crashed across the room, yelping. He bellowed profanity, and dropped down and swallowed on the floor before Tommy could reach him. But Tommy picked him up, held him at arms' length, and struck him once more.

"I'll let you off," he said meditatively, "if you'll tell me where the projector is. How about it?"

"I'll tell you," snarled Little Angie, "that I'm King Burk's lawyer, and you'll be on the spot if you touch me again!"

HE wrenched himself free as Joan uttered a little choked cry. Inspector Holliday blew a luxurious puff of cigar-smoke toward the ceiling.

"I doubt if that will make much difference," he said easily. "But let him alone for a while, Garland. He came here to tell us something."

The fat man was grotesque to look at, patting an expensive silk handkerchief against his bloodied face. His eyes upon Tommy were murderous. The Commissioner scowled wretchedly. But he had to know what Little Angie came to say, and Little Angie knew it. He put the handkerchief away. He did not look nearly the dapper figure of a few moments before. His face was puffing out rapidly and his lip was cut.

"I came here," he rasped—and suddenly moderated his tone to a near approach to professional suavity—"I came here on behalf of my client, William Burk. 'King' Burk, you call him. He believes he has information of value to the police. It's about Professor Sharpe's apparatus, that was used by criminals last night and this morning."

"Go on!" said the Commissioner ominously.

"I bailed out Professor Sharpe yesterday," said Little Angie, "and took him to my client. King Burk was interested in the Professor's invention. He thought he might invest in it. But the Professor wouldn't deal with him. The Professor left. What happened to him afterward my client doesn't know exactly—"

"No?" said Tommy Garland sardonically.

Little Angie gave him a venomous side-glance.

"But he heard indirectly that the Professor had been trailed home and bumped off by a hi-jacking gang. The

newspaper reports prove that they've got hold of the Professor's invention and are using it. My client believes he knows where the Professor's murderers are concealed, and where the invention he made is kept."

Inspector Holliday regarded his cigar intently. The Commissioner glowered.

"Well?"

"My client ain't a squealer," said Little Angie, "but he don't hold with murders and such. So he offers to muscle in and take that apparatus away from the guys who have it, recover all the stolen goods he can, and return everything to the police for immunity for anything that may happen while he's getting the apparatus. And he wants a reward, of course."

"How much?" snapped the Commissioner.

"A million bucks," said Little Angie, now all blandness. "It's reasonable. A quarter of a million was stolen today. Another quarter-million dollars' worth of cars, anyhow, were ruined this morning. If those guys that have that projector get gay with it tomorrow, say, they can tie up every car in New York. They can block every bridge and every street. They can ruin a couple million dollars' worth of cars by just sweepin' that magnetic beam up and down Broadway or Fifth Avenue, and besides that, just figure what'll happen if they start out blockin' traffic other places just for meanness! An' next week when they get goin' on Wall Street again, it's goin' to be just too bad! Then when you figure how they like to take guns away from cops...." He paused, and added comfortably, "You can raise that million easy. The auto-insurance companies will chip in. They'll pay willin' to keep more cars from claimin' accident insurance."

The Commissioner was too angry to speak, but Tommy spoke with a blandness matching Angie's own.

"You're all wrong, Angie. For one thing, the cars aren't ruined. There are a couple of Edison Company trucks out fixing them up now. The cars are magnetized at the moment, sure. They can't be run, or even cranked. But those trucks have some big coils swung out on derrick-arms. The coils are big enough to drop down over any car. The trucks slip 'em over a car, run alternating current through 'em, and the cars are remagnetized, only the direction of the magnetization changes sixty times a second. They shut off the alternating current slowly, with a rheostat, and the amount of magnetism is cut down every time it changes. In fifteen seconds by the clock, they've got the car demagnetized again. It runs off under its own power. That part doesn't go!"

Little Angie looked at him blankly, and then veiled his expression.

"Yeah? Well, maybe that's so an' maybe it ain't. I'm actin' as King Burk's attorney, an' I'm passin' on his offer. It ain't his funeral! He"—with a sudden effort, Little Angie resumed the air and the manner of speech of a successful criminal lawyer. "He ain't mixed up in these robberies. He's just got some information and a chance to help the police. He's offering to do it, for a price. And"—Little Angie adopted the manner of one who hears his client unjustly maligned—"if you don't want to deal with my client, he ain't to blame for what happens, see?"

Tommy said gently:

"Since he isn't connected with the affair, you might tell him not worry about what's going to happen. If that

magnetic beam is turned on any cops after tomorrow morning, it'll pull a hand-grenade to the truck that carries it, as well as the cop's gun."

Little Angie snarled.

"Yeah?" Then he was bland again. "I forgot to tell you that my client has heard there's likely to be some kidnappin's before long, and that if anything like that is pulled off, the grenades will bump off a couple missin' cops. Get me?"

Tommy Garland said meditatively:

"I think that's all we need to know, isn't it? I think I'll beat his face in some more. He needs it."

He moved toward Little Angie, but that celebrated criminal lawyer darted to the door and through it, emitting blasphemies. Then Tommy smiled very grimly.

"He came just to warn us not to dare use grenades. Suppose we get to work, Inspector. I ought to be pretty much on the spot. We'll get ready to take advantage of it."

The Inspector looked momentarily puzzled, then rose and accompanied Tommy from the office. Joan began to sob quietly to herself. The Commissioner fidgeted. Then the Inspector came back for Joan. She went obediently with him, but she was deathly pale.

It was an hour before Tommy and Inspector Holliday left Police Headquarters to take advantage of the fact that Tommy ought to be on the spot. Joan was left at Headquarters, under very efficient guard, because she would naturally be the ideal hostage for King Burk's magnetic-beam operators. But Tommy and Inspector Holliday rode away in state, in a closed Police Department car, with two motorcycle cops ahead of them and two others behind. Joan strained her eyes after the car, terrified and yet hopeful.

It had gone exactly three blocks from Police Headquarters when she heard an uproar. The savage, snarling rattle of a machine-gun in action. The shriek of a siren. And then explosion after explosion after explosion. Pedestrians fled from a column of swirling yellow smoke, rising from the middle of the street.

CHAPTER IV

IT couldn't have happened more as Tommy expected, if he'd planned it all. He and Inspector Holliday had ridden away from Headquarters in a closed car, which is one the police department owns and uses upon occasion, but doesn't brag about. The body is three-eighths-inch hardened steel, and the glass is bullet-proof, but to the eye it is exactly like any other car of its apparent make and model. Two motorcycle cops chugged alertly on ahead of the car, and two others followed close behind. Anybody who looked very closely might have seen that the cartridge-belts they wore took shells of extraordinarily large size, and their pistols might have seemed unusual, but that was all.

They mingled with the traffic, headed uptown. Cars and trucks of every possible variety surrounded them. The singularly unimpressive shops and lesser wholesale houses of downtown New York flowed past them. The sidewalks were nearly empty. Two o'clock on a Saturday afternoon discloses the lower part of Manhattan as a seething mass of vehicular traffic, but pedestrians practically do not exist.

"If beating up Angie doesn't get us direct action," said Inspector Holliday, "I don't know what will. It was an inspiration."

"It was at least a satisfaction," growled Tommy. "The Professor is still unconscious, and he may not live. And Little Angie helped get him that way."

The Inspector lighted a cigar and leaned back comfortably in his seat. A side-street went by, nearly empty of vehicles. The traffic was all bound uptown. They were again surrounded by cars and trucks.

Then, suddenly, there was a wild whooping noise just behind them. One of the motorcycle cops had stopped short with such violence that he was flung forward upon his handlebars. Smoke began to issue from the hood of a roadster next to the police car. It stopped with a squealing of scraping metal. The second motor-cop jammed on his brake as his machine twisted crazily beneath him. He jumped off it and fumbled at the flap of his holster.

"It's come!" said Tommy savagely.

Their own car stopped, with a shock that threw them out of their seats. Its motor was dead instantly. Tommy scrambled up from the floor, reaching for a curious object flung from the seat with him. And then, instantly, there loomed up outside the windows a monstrous moving-van of a truck. It started to pass them. Its back doors swung wide, and Tommy's head came above the level of the car-door just in time to look into the muzzle of a submachine-gun.

That rasped deafeningly as Holliday jerked him down again. The windows were bullet-proof, but they were cracked in a myriad places by the impact of steel-jacketed missiles.

"Sit still, man!" snapped Holliday. "You're bait, that's all!"

There was a crisp detonation outside. Somewhere, people were screaming futilely. Tommy wrenched himself free, tore open the door on the opposite side of the van, and tumbled out to the pavement with his own particular weapon with him. He was conscious of nothing short of pandemonium.

Cars all about him were still, with dense clouds of smoke coming from their hoods. When an engine is suddenly magnetized, its cylinders become nearly red-hot instantly, and there is a cloud of vaporized lubricating-oil which has to come out somewhere. There was never a fog of the grayish smoke at the street-level.

Tommy saw one of the motor-cops flat on the asphalt. He was firing a single-shot pistol beneath the police car. The weapon in his hand was familiar. It was a Very signal-pistol, made of brass instead of steel and bored out to shot-gun bore. It was flinging buckshot into the tires of the moving-van. But they seemed to be solid rubber. There had been two motor-cops at the front of the police car. One of them was firing at the chauffeur of the van. His cheek suddenly showed a vivid slash of red across it and he dodged, and Tommy noticed subconsciously that he was shooting with his left hand, and reloading clumsily. The other man in front was leaving small brass spheres that went off with inadequate popping noise—tear-gas bombs. Then the fourth motor-cop came crawling to shelter, dragging a shattered leg behind him.

All this Tommy saw in a time to be measured in fractions of a second. Inspector Holliday was out of the car, too. He raced toward the front, shouting something unintelligible. Tommy bent down, seized a service revolver of steel which seemed to have dropped from the skies, and started to empty it around the back of the

police-car. It was wrenched from his grasp with a suddenness and a violence that was startling. And then Tommy grinned savagely and stepped into plain view from behind the car. The magnetic beam was on. . . .

He looked into the back of the motortruck through the wide-swing doors. There was the projector, mounted and with a bank of heavy storage-batteries to supply its current. It was protected against the impact of objects it drew to itself by a grille of heavy brass piping. Tommy saw men in gas-masks behind that grille, serving the projector and the submachine-gun next to it. That gun bore on Tommy. . . .

BUT even in the flash of time it took to see all this, Tommy felt the beam wrenching at the objects in his pockets. His knife tore away from him. His watch—because of its steel main-spring. Then the peculiar object of his own contrivance flew from him as if on wings, and he saw the explosion when it went off. The interior of the van was suddenly a billowing mass of white vapor. But an awful reek came out which had nothing to do with tear-gas at all. That smell was horrible, was nauseating, was unspeakable. . . .

The van admitted defeat. Something dropped in the roadway. A fuse sputtered and flashed, then flared up, and a monstrous column of yellow smoke went swirling upward, to descend slowly and fill the street with a blinding fog.

But the van fled ahead of that fog. It left behind it helpless cars, their magnetized motors smoking and inoperable. It left behind it one motorcycle policeman with a shattered leg, and another with four separate bullet wounds from the guards in the drivers' seat of the van, and it left an armored police car battered and torn by bullets. It left the fog. And it left behind it a definite, positive, unmistakable trail; an odor more nauseous, more foul, more utterly repulsive to human nostrils than even the odor of skunks. It left behind it the odor of mercaptan, one of the vilest-smelling substances known to chemistry, which tests have proved can be detected by the human sense of smell when present only to the extent of one ten-millionth of a milligram.

Tommy had taken a small tear-gas bomb and surrounded it with bottles of mercaptan. That awful stuff had scattered at the bursting of the bomb. The whole affair was based on the belief that his battering of Little Angie would lead to an attempt at his murder, during which attempt the murderers would be protected against tear and sternutatory gases. So it had turned out, but there was no mask which would prevent the awful stench of mercaptan from trailing behind the fleeing van, and serving as a more conspicuous signal of its passage than any other possible thing.

Inspector Holliday crashed a plate-glass door to use a business telephone in a hurry. He reported blandly. By the time he hung up there were reinforcements of motorcycle police on the way. There was a message being taken to the demagnetizing trucks, of further work for them to do. And there was being broadcast to every precinct station and every fixed post in Manhattan a warning to trail and report the truck with the nauseous smell.

Motorcycles roared up. The Inspector flung himself into a side-car. Tommy tumbled into another. They went feeling their way through the foggy cloud. They came out of it, gagging because of the smell the now

fleeing vehicle had left behind it. It was racing up Broadway. They trailed it partly by the stalled, smoking cars left behind it—but more by the scent that by no possibility could be missed.

Over to Seventh Avenue. Here a flivver roadster had crashed into a fire-plug, and there was a turbulent fountain flooding the street. A motorcycle cop shouted a question. The traffic officer pointed. They went racing on. Now, suddenly, there were rows of smashed plate-glass windows on either side of the street. It seemed as if those in the truck were now using the beam merely for wanton destruction. First on one side, and then on the other, every window was shattered by the surging outward of what metallic objects had been among its displays or fixture. There was a little group of horror-struck people, staring stupidly down at something on the sidewalk. This particular store had had a window-display of cutlery and hatchets and similar utensils, and they had burst through the plate glass when the magnetic beam smote upon them, and there had been someone in the way. . . .

A policeman, his uniform in shreds and staggering weakly from some injury that crimsoned his rags, pointed down a side-street. The roaring motorcycle swung madly. . . . —The truck!

It stood still in the middle of the street. From it came the horrible reek of the mercaptan. The motorcycle roared up to it, brazen weapons ready. . . .

And the truck was deserted. More, the projector had been removed, though the bank of heavy storage-batteries was still within it. Its body was half-filled with the strange assortment of stuff that had been drawn in by the magnetic-beam projector. Police revolvers, belt-buckles, pocket-knives and watches were but the beginning. There were auto-spotlights, display-fixtures from shop-windows, a butcher's cleaver and steel skewers; a tangle of dog-chains and three or four women's hats, decorated with cut-steel ornaments; and there was a bit of ornamental ironwork in the form of an intricate scroll, which was buried under nail-files, steel buttons, pocket combs, one or two metal door-mats and the battered, smashed, revolving oven of a peanut roadster.

Inspector Holliday swore virulently. Tommy said crisply:

"Ask the people around here where the men from the truck went."

Holliday snapped an order. Policemen moved to obey. He swung up on the running-board of the stationary van and was about to wrench the door open when Tommy snapped:

"Hold on! Wait!" He stared keenly through the door-glass. "Look at that! You and I would be the ones, ordinarily, to open this up."

Holliday swore again at what he saw. Opening the door would mean the making of an electric contact, from which wires led to an iron-bound wooden box.

"It's a job for the bomb squad," he said disgustedly. "It's arranged to go up when the truck's examined."

"And maybe anyway," said Tommy coolly. "Get your men away and let's find out where the gang went."

A patrolman came back from a house nearby.

"The truck stopped, sir," he reported. "The men in it tumbled out, got into a closed car, carrying a couple of heavy parcels, and the car went away. The car—"

He described it. Holliday scowled.

"Gone! Clean getaway! A car just like that passed us a few blocks back. Maybe this gang was in it!"

Tommy shouted suddenly:

"Back everybody! There it goes!"

There was a sudden hissing and a burst of flames in the deserted van. Then a dull booming noise. The truck seemed to shudder and fall apart. Flames mounted skyward with a fierce heat that drove the men back.

"Ring a fire-alarm," said Holliday wrathfully. "Half you men stay on guard. The rest of you come back to Headquarters with us."

He seated himself morosely in the side-car. Tommy grinned at him for some obscure reason.

"I wonder if you realize," he said, "that we've got King Burk on the run, anyhow? He's three-quarters licked, if you think it over."

"I don't realize it," snapped Holliday. "We laid for him, and he ran into our trap—and then he went right out of it again. And he's gotten away with the projector!"

The motorcycles roared away, making for Headquarters like a squadron of cavalry mounted on small snorting dragons. There Joan's face regained some of its color at sight of Tommy unharmed. He patted her shoulder comfortingly.

"We're getting there!" he assured her. "Everything'll be all right in no time, now. They sneaked out on us this time, but wait!"

Inspector Holliday came up, disgustedly.

"Well, how've we got them on the run?"

Tommy grinned.

"How many cops have you got who'll walk up to a crazy man with a gun, and take it away from him?"

"All I need," snapped Holliday. "But—"

"How many," asked Tommy, "who will walk up to a skunk and put it in a bag?"

HOLLIDAY stared, opened his mouth, and closed it again.

"Mercaptan," observed Tommy, "is hard to get. You'd better round up all of it there is in the city. Its odor is unmistakable. We can mark any truck that carries the projector, now, without harming any hostage. King Burk may kidnap. But round up the whole city supply. We don't want him—er—laying false scents! But I don't think it will be used from a truck any more. His men won't risk being sprayed with that awful-smelling stuff, though they may not mind facing gun-fire."

"Then what?"

"We'll hear from Little Angie again," said Tommy. "King Burk is going to have a passion for cooperation with the police. His first offer's going to be repeated. And meanwhile, we'd better have some more demagnetizing trucks gotten ready. There's only one thing I'm afraid of. If King Burk finds out about that Hall Effect. . . . But he won't. He hasn't got brains enough for that."

That was at four o'clock in the afternoon. The demagnetizing trucks then in operation made their way to the trail of the odorous, now destroyed moving-van. One by one, they restored the stalled cars to serviceability. The shops with smashed windows were patrolled by police until plate-glass insurance companies viewed the damage. Burglary-insurance companies reinforced the police guard and began the boarding-up of those shops over the week-end. The local price of plate-glass rose

slightly. There were bitter inquiries made by the plate-glass insurance companies as to when the police would stop this foolishness. Burglary-insurance companies raised especial disturbance. Automobile insurance companies breathed sighs of relief at the discovery that the supposedly ruined cars were actually unharmed. Night fell.

And then, just when the theatre-crowds in the Times Square district were at their thickest and most festive, there was a sudden tinkling of glass in Times Square itself. It began near the bottom of the old Times Building, and went swiftly upward. Windows burst outward in a swift progression, from story to story skyward. Things came hurtling out of them. Pens, typewriters, filing-cabinet drawers, and filing-cabinets themselves. They shot out of windows, smashing them, as if flung outward by maniacs within. Then they dropped to the ground. Glass tinkled down the sides of the building. The air became full of sharp-edged fragments of glass, of fluttering papers, of heavy, deadly missiles dropping to the street. In less than one minute there were only gaping, empty windows on one side of the old Times Building, and there were a dozen people injured and two killed on the pavement below. A mad panic began.

Seconds later, the windows of the Knickerbocker Building began to shatter. Three people were killed here by falling typewriters and heavy objects, and twenty. The air became full of sharp-edged fragments of glass,

The panic spread. Then, instantaneously, though many blocks away, the tall tower of a rubber company spurted broken glass and steel office fixtures from its windows. Less notable buildings spattered the sidewalks with razor-edged glass-fragments and metal objects that were deadly by their weight and the velocity of their fall.

Police fought manfully to clear the streets. For an hour the destruction continued. The list of injured went up into the hundreds, though most of the injuries were cuts by glass. And there were deaths, . . . Even, in one of two cases, of amazed persons in office-buildings who stared out of windows to see the cause of the tumult, and were thrust out by their own office fixtures, insanely endowed alike with the power of motion and a frenzied desire to leap madly out into space.

In one hour the destruction reached more than twenty blocks to the north of Times Square and as far south. The Empire State Building showed gaping hollows toward the west. Aeolian Hall was empty-windowed on two surfaces . . .

But at midnight it was observed that no more glass burst. Instead, the electric signs that blazed above Broadway began to act strangely. Black spaces appeared on their blank areas. Now and again a sign would wink out completely. Frequently a quarter or a half was blotted out for a longer or shorter time. As one, the surface-cars were stopped for a space of fifteen blocks.

At one-thirty, all strange phenomena ceased.

CHAPTER V

THEY reached Tommy Garland in Brooklyn at eleven o'clock, while windows were still bursting outward and office fixtures were still displaying mobility and homicidal mania in novel combination. But Tommy was then in a pitilessly lighted small room with flooring of some sanitary composition, and walls of

sterilizable paint, and a faint odor of antiseptic. Joan sat up with clasped hands, deathly white, her face strained and drawn. Tommy held fast to her hand and tried to draw her eyes away from the ground-glass panel of the door marked "*Operating Room*." There were movements and crisp, low-toned orders beyond that door, and her father's life hung precariously balanced between this world and the next. He had taken a turn for the worse. An operation, which would normally be delayed, had become an emergency measure. He might come out of the operating-room dead. It was possible that he might come out with a chance for recovery. It was most probable that he would come out of it with his death delayed no more than a few hours by the surgeon.

It was there that representatives of the Police Department found Tommy Garland and demanded orders and advice. He listened to them impatiently.

"Line up the sender!" he said irritably. "Line it up! Then go get it! Good Lord! It's the simplest of all possible problems! Line it up! Get Inspector Holliday! He'll tell you! And get to h— out of here!"

There was a concerted movement inside the operating-room. Tommy fairly pushed the representatives of the Police Department out of the anteroom and went back to Joan, whose groping hands clutched his convulsively, as the movements beyond the ground glass-paneled doors seemed to indicate a definite climax passed.

A nurse came out. She smiled mechanically at Joan.

"The operation was very successful," she said cheerfully.

"Will he—live?" asked Joan through chattering teeth.

"We'll know within two or three hours," said the nurse reassuringly. "It depends on how he rallies."

Joan's hold on Tommy became painfully tight as the rolling stretcher came out of the operating-room. Tommy was the only human being she had to cling to. And she thought of nothing but her father, but Tommy thought of nothing but Joan, during the long, long hours of waiting in the horribly still hospital room, before a surgeon made his fourth or fifth examination and then gave the dubious encouragement of classing Professor Sharpe's condition as "Quite satisfactory, in fact allowing some hope to be entertained for his recovery."

And during those hours, naturally, Tommy was oblivious to the havoc that was being created by an invisible magnetic beam playing about Times Square in New York. He was ignorant of the fact that Inspector Holliday had vanished and could not be located by his superior officer. It was not until Joan practically collapsed from sheer nervous strain and was put to bed, that he could spare any thought for any other matters.

Then, for the first time, he really paid attention to the news announced in scarehead type on extras being cried through the streets of Brooklyn. The two policemen assigned to guard him added other details, confided by the emissaries who had pushed their way in to Tommy earlier. And Tommy cursed bitterly as he climbed into a Police Department car and went racing through the deserted past-midnight streets toward New York.

"Why didn't they line up the damned thing?" he demanded savagely. "I told them to do that! Why didn't they?"

A voice said hopelessly:

"They did, sir. They were desperate, and they got hand-grenades ready to be drawn to the projector, but

the orders were countermanded when it was found the projector didn't draw objects all the way to it. It pulled them a little way, sir, and dropped them."

"Meaning," said Tommy between his teeth, "nothing but that the projector was fitted out with an interruptor. Instead of a steady pull, the current was turned on and off rapidly so the stuff would be jerked forward and allowed to drop. . . . But I didn't say anything about grenades! Take me to Times Square."

It was after two, then, and it was two-thirty when the police car's tires began to crackle on the fragments of glass scattered all over Forty-Second Street. Police reserves were busy stringing rope-lines and holding back crowds of curious people who had come surging downtown by elevated and subway lines to view the wreckage the evening broadcasts had described. There was something close to chaos where the damage was most marked, and it was minutes before Tommy could find his way to the officer in charge of the situation.

Then he, as a civilian, was soundly berated for his failure to appear earlier. And Tommy lost his temper and showed the officer in charge just how simply the projector could have been located. The nearest wrecked office was his lecture-room, and he wrathfully pointed to scratches on a flat-topped desk.

"A steel paper-weight scraped across here," he snapped, "being dragged straight toward the projector, though there was a wall between. It hit the plaster there and imbedded itself. See?"

A wave of disgusted comprehension went over the faces of his audience.

"That's one line toward the projector," growled Tommy. "Go into other offices and you'll find others. They ought to converge at one building somewhere not too far away. Try it and see!"

IN a very few minutes, enthusiastic policemen were racing toward a certain indicated pile of steel and masonry. Tommy went with them, though his expression was acid.

"It's too late now," he growled. "But there was all the chance in the world to catch them—and it'll never happen again! They'll be wise now."

The police battered away into the locked building. They began a search. And the methods of search of enthusiastic policemen in a locked office-building, in quest of a man responsible for some two dozen deaths or more, is not sparing of locks and wooden doors. The sound of crashing was only halted by the shrilling of police whistles high above them. There was a rushing of men for the stairs.

Inspector Holliday greeted them on the sixth floor.

"They're gone," he observed. "I got here five minutes late. I traced back the ownership of the truck that was destroyed this afternoon, and it led me here. I thought they'd destroyed it because it wasn't stolen and might be a lead back to them. It was. I worked like hell for six hours, and got here five minutes late mainly because the subway and surface power went off for a while. How did they turn the power off, Garland?"

Tommy asked more questions, and the answers gave him his first news of the blotting-out of lights in signs, then of whole signs, and the stopping of all surface-cars for many blocks. He ground his teeth.

"I only found out the beam would do that the day the projector was stolen," he said savagely. "They must

have found it out by accident when they tried to topple over a sign. The beam exerts an exaggerated Hall Effect. It turns the path of conductivity in a metal through a hundred and eighty degrees. In other words, it turns a copper wire into a non-conductor. They can shut off the power in the subways, since they've found it out, or cut off telephonic communication, or lights...." He stopped short and pounded one fist into the other palm. "By God! We'll get em!"

And then he took Inspector Holliday by the arm and dragged him off to the end of the hall of the empty building, where he talked urgently in a low tone. And Inspector Hall listened, and his eyes gleamed. But he said:

"When do you suppose, Garland, we'll be able to go to sleep again? This is another all-night job."

But he and Tommy went downstairs and out of the building together, leaving disappointed policemen to investigate an office in which there were some office supplies, and a few compromising documents regarding one of the bootlegging businesses that contributed to King Burk's income, but no sign of magnetic-beam projector except a very sturdy tripod and the apparatus which ordinarily is used to eliminate the need for batteries in a radio set. The projector itself was gone again.

But Tommy Garland and Inspector Holliday set to work on an all-night task which called for hot coffee and very many maps of a highly specialized kind, and four Police Department clerks to make telephone calls and drag wrathful and sleepy persons out of bed to answer questions. Which activity, carried on for hours, added to the information contained on the specialized maps and allowed them to draw another still more specialized map, and formulate instructions to be transmitted by telephone to the operations manager of each of the three gigantic electric power stations, which supply New York with power. It was dawn when Inspector Holliday, yawning, finished checking over a list of orders for policemen.

They looked at each other in rueful weariness, and Tommy slumped down in his chair and was instantly asleep. The Inspector joined him in slumber only a few moments later.

At half-past eight in the morning they were wakened. They'd had less than three hours' sleep. A stout patrolman was sweating before them.

"Subway's out, sir," he reported in awe. "All subway lines are tied up below Forty-Second Street."

Inspector Holliday rubbed his eyes, and yawned, and looked up at the map he and Tommy Garland had prepared. There were lines of different colors going here and there, erratically. Green lines were city power-cables, and blue ones were subway power cables, and yellow ones were inter-exchanged telephone cables, and so on through the spectrum. The whole power system of the city was represented on the map, and a glance made it abundantly clear just where the subway power cable had to be cut or affected by the magnetic beam to shut off any given section of the city from power.

Inspector Holliday put his finger on one certain spot.

"The second district squads of motorcycle police," he commanded, "are to converge on this place with tear-gas and mercaptan bombs. Then they will follow this route to here." The stout policeman took notes, immediately. "Have some breakfast sent in," added Holliday, "and tell me when the subway starts up again."

Ten minutes later breakfast and news that the subways were functioning normally came in at the same time. Tommy Garland grinned.

"King Burk will think those cops were an accident," he observed, "but he can't use that beam where a mercaptan bomb is likely to smoke him out."

THE two of them attacked their breakfast. They were just finishing it when half of New York was cut off from telephonic communication with the other half. Again Holliday looked at the map, and racing motorcycle police swept in a compact down a distant street, with tear-gas and mercaptan bombs conspicuously ready for use—and brass pistols in their belts instead of service revolvers. Again the interrupted electric circuit was instantly restored. Because the magnetic beam could not safely be used in the presence of those mercaptan bombs, consequently it was cut off before the police could take any measures to locate its exact position.

Then the tedious part of Tommy's plan came into play. A list of telephoned license-numbers came monotonously in to Headquarters. It was the list of every parked car in a position where it could have shut off the telephone service by the use of a magnetic beam. It was being checked against the list of all the parked cars in a position to shut off the subway power cable. If the same car was parked where it could have done each of the two things, it might be only coincidence, but also it might be the car which had done the things. In any case it was worth searching into.

But both lists were long ones, and it took time to list all the parked cars. It was a full half-hour before the duplicate number was discovered. Then police posts throughout the city were simultaneously ordered to look out for licence J20-153. A bare fifteen minutes later a traffic-tower on lower Fifth Avenue reported it going south. And then the action began.

Southbound traffic was stopped dead, from 4th Street to the Battery. All motors were ordered cut off. There were serried ranks of stationary cars all headed—this being Sunday morning—for the vehicular tunnel to Jersey and the great open filling-stations. Small, flying patrols of motorcycle police went racing down the lines, scanning the stationary cars for the license-number which was a dead give-away.

They found it at Canal Street. And the car was deserted. The chauffeur of a taxi next to it in line, reported that the occupants had gotten out, carrying heavy packages, and caught a northbound taxi. Northbound traffic was not being interfered with. The motorcycle police swore painfully, reported the matter to Holliday, who swore more painfully still, and removed the ban on southbound movement. But the traffic still did not move. The taxi carrying the men who now were fugitives had evidently been put to good use. For thirty blocks, to Union Square, the magnetic beam had been turned from the taxi upon the cut-off motors of the stationary southbound cars. Aimed low, it had not disturbed objects in passenger's pockets. But there were more than two thousand cars so definitely magnetized that their starters could not crank them.

Holliday took this news calmly, and it was Tommy Garland who grew embittered.

"Something else I hoped they wouldn't find out," he said bitterly. "We used banks of big storage-batteries, for salvaging, because we worked the projector eight,

ten, twelve hours a day. They've found out that B-batteries and dry cells will run it an hour or so before they go dead. They've got it as portable as a machine-gun now. Somebody in King Burk's gang must know his stuff. I wonder who he is?"

Holliday grunted. Tommy stared at the map again.

"He's nearly at the end of his rope, though," he said slowly. "Portable or not portable, that projector has gotten him in a mess. He's killed nearly thirty people and injured a couple of hundred. He's stolen a quarter of a million dollars—and his income as a racketeer would amount to that in a month. And he daren't use the beam to steal anything now, because he's afraid of our mercaptan bombs. He daren't try general destruction again, as he did last night, because he knows we'll locate the projector in a hurry. There's no question but that he knows that office of his was raided! In fact, there are only two things he dares to do, and only one thing he can hope for!"

"I'm listening," said Inspector Holliday drily. A messenger came with a thick envelope. He took it and ripped it open.

"The only things he dares do," said Tommy, "are magnetizing cars and cutting off electric currents. And he's desperately anxious to get rid of the projector. He shouldn't have fooled with it from the beginning. He knows it now. All his money and all his influence can't get him out of the jam it's gotten him in. So the only thing he can hope for is to trade it in for immunity."

Holliday skimmed through the documents in the thick envelope.

"He wants more than that," he observed drily. "Here's a forwarded communication from Little Angie. He still maintains that King Burk isn't in possession of the projector, but he says he knows where it is. And banking on the destruction of last night, I suppose, he says that for a million and a half and immunity he'll raid the present possessor of the projector and turn it over."

Tommy Garland growled.

"And Miss Sharpe," added Holliday, "has asked that you be told that her father is expected to recover consciousness in a few hours. His recovery is almost assured."

The telephone bell rang. Holliday answered, talked, and reached for his hat.

"All power in Brooklyn is cut off," he observed calmly. "We'll go over."

But Tommy put his finger on the map they had made, where a green line crossed the East River.

"Why? Here's the submarine power-cable, the hundred-thousand-volt submarine cable going under the East River. You forget that the beam can be sent down to it through the river-water and mud from anywhere on the East Side. And King Burk thinks, undoubtedly, that we've got men watching for him on all the bridges."

"We have," said Holliday.

"Then he's on this side!" said Tommy. "Where?"

He scrutinized the map carefully and pointed to the three green circles indicating the monster power-stations which together supply practically all the power used in New York City.

"Wharves all along here," he said slowly. "He can't lift the cable from the waterfront in a car. He's up in a tall building, shooting over the wharves. He's fed up on cars. Can you locate the taxi he took at Canal Street?"

"The taxi driver who tipped my men," said Holliday, "knew the driver. Sheer accident. He's being hunted for now. We have looked up the license-number, and his cab-company's ordered to find him and get him on the wire. That is, besides the police."

"They stopped magnetizing cars at Fourteenth Street," said Tommy. "He must have turned east not far from there."

The phone rang. Holliday answered it again. He wrote down an address and pushed it over to Tommy.

"That's where he put them down," he observed.

"Careless," said Tommy. "Very careless of them! Look at it on the map."

He made a dot to show it. And then he drew lines to the circles indicating the three power-plants.

"Within these four blocks," he pointed out, "he can see each of the three power-plants from the top of a reasonably tall building, and can aim the power-beam into them. Since the range is theoretically infinite, a few miles don't count. King Burk probably plans to raise Cain from there for a while, and duck out before we can locate him. To another place, raising havoc for another while, and again a duck-out. He's kept ahead of us pretty consistently, but the breaks have been with him. Here's a break for us."

But Holliday wasn't listening. He was snapping jerky sentences into a telephone transmitter, giving orders far beyond his own authority, but which would be obeyed, nevertheless.

"Let's go," he said briefly, hanging up.

THE headquarters car in which they left for the East Side was not armored, nor was it glass bullet-proof, but King Burk was not on the offensive now. He was blocked from most of his former endeavors, and could only hope to keep ahead of the police while creating havoc, until immunity was granted him as the price of his surrender. The police car went boring through traffic until clanging gongs began to sound on all sides. Then traffic cleared, and a throng of police patrols began to disgorge hurrying reservists who raced to form lines and cordons about certain chosen blocks of buildings. Seconds only after Holliday had left the car, fire-engines came racing up with more clangings. Fire-lines went about the chosen four blocks with the celerity of long practice. The population outside the fire-lines thronged and stared. The population inside the lines displayed uneasiness amounting to incipient panic.

"If he's here—" began Tommy.

The heat-telephone brought a message for Inspector Holliday. Power was on again in Brooklyn, but was off in uptown New York. No light would burn, no elevator would run, in that direct-current district north of alternating-current Manhattan. It was a call which should have required his presence in the Bronx, as the previous report seemed to have called him to Brooklyn. But the same reasoning that had chosen these four blocks of buildings made this new report a confirmation of the choice. The cordons about the four blocks tightened. Not as much as a cat could escape without an alarm. And then the power in all of down-town New York went off. This, too, might have seemed to prove that King Burk was moving about and doing damage. But it proved that he was trapped.

A fire-department ladder-truck rolled forward and reared its towering twin beams upward. Tommy Gar-

land went up first, though the height made him sick and dizzy. He landed on the roof of the tallest tenement and firemen and police with ropes and ladders followed him. The ladder truck moved, and Holliday led a second boarding-party to a second high roof at the end of the square of houses. Then, watching keenly, they spread out over the roof-tops of that block. Not less than two men to the top of every building, and every man armed with a brass pistol which fired a shot-gun cartridge loaded with buckshot. This building-top occupied, amid alarmed squealings from its legitimate inhabitants. . . . That roof garrisoned. . . .

There was a rasping rattle of shots. A fireman spun around and dropped. A policeman threw himself down behind a cornice and began to sling buckshot in the direction of the sub-machine-gun fire. He shook himself, presently, and revealed his uniform in shreds. Metal buttons, suspender-fasteners. . . . He was half stripped by the loss of every iron object about him.

But flanking movements were already in progress. A fireman's ladder went across a gap between two buildings. A burst of machine-gun bullets cut it in two and the fragments crashed down six stories to the areaway below. They killed three people down there; tenants of these buildings who were watching, wide-eyed, the maneuvers of police and firemen seemingly gone insane.

But the flanking movement went on. More, police surged upward and filled the upper floor of the building in question. A skylight crashed, and buckshot whined across the beleaguered roof from within the space of its own cornices. The sub-machine-gun spat again. . . .

But when the clumsy brass pistols began their booming they made a barrage which covered the advance. Under cover of their fire blue-coated men reached points of vantage which made the position of the machine-gunner untenable, and the magnetic beam refused to draw the clumsy brass pistols from their owners' hands. Four hundred shell-loads of buckshot kept down the fire of the machine-gun to three bursts only. Then a white flag appeared above a chimney.

Inspector Holliday scrambled forward from one side, brass pistol in hand, as Tommy Garland, similarly armed, rose grimly into view from the other side. They took their lives in their hands, of course, but the ending was anticlimactic. There were three men, and three men only, embattled in a corner of the roof. There was—of all persons—Little Angie, celebrated criminal lawyer, his fat cheeks ashen at the realization that he was caught in a situation from which no legal technicality could free him. There was King Burk, his expensively tailored clothing punctured in three places by buckshot, and one of his cheeks slit so that he seemed to be grinning sardonically. He still held the sub-machine-gun. And there was a third man, a young man with an unfeigned bitter smile upon his face. He was knocking loose certain strands of wire which had held the supporting tripod in place against the strains of the beam's operation.

"Hello, Angie," said Inspector Holliday grimly. "March out in plain sight, with your hands up. I think we've got you right now!"

Little Angie licked his lips and obeyed. King Burk scowled and snarled soundlessly. Tommy Garland stared anxiously at the projector. The bitterly smiling young man shifted the tripod.

"It's all right," he said harshly to Tommy. "I treated it right! It's a dam' fine trick, it is! I ain't just figured

the whole thing out yet. That dam' fool—" He indicated King Burk contemptuously—"wouldn't let me take it apart. He wanted to work it all the time. I'd ha' gotten onto its curves in while. You tell the guy that made it that he's good, see?"

Tommy did not speak. The bitterly smiling young man caressed the copper and bakelite of the projector. His manner was almost wistful. Tommy could understand that. There are people to whom machinery is carelessable, to whom a perfectly working device is a thing to be treated not only with care, but with affection.

"You, Burk!" snapped Holliday's voice. "Put down that machine-gun and march out!"

Tommy heard the clatter as King Burk dropped the weapon and went out to captivity. He heard King Burk snarl as men approached him with handcuffs.

"Say," said the young man who had worked the projector. "Tell me somethin', guy. I'm kinda crazy about this dinkus. What's its range? How far'll it work?"

"No limit," said Tommy briefly. "Absolutely none, as far as I know."

The young man looked at him with burning eyes.

"Yeah? Y'mean that?"

"I mean it," said Tommy shortly.

"See," said the young man querily. "I got it fixed up so it's all in one piece. Batteries an' all, one piece, see? An' I ain't so keen about rottin' behind bars. I'll try somethin'."

He flung his head back, to where the pallid daytime moon floated in the zenith, hours ahead of the sun. There was a little click. A pale pink glow shone through the glass disks that were a part of the projector. Tommy leaped forward. To shoot meant injuring the projector, but—

The copper-and-bakelite cylinder suddenly lifted, straining upward. The skinny figure of its operator clung to it. He had strapped himself to it! Fifty feet straight forward he soared and laughed shrilly. Then the thing leaped skyward with a violence that made a whistling noise in the air. It dwindled to a speck with such swiftness that it was impossible to follow it. It vanished utterly in the blue.

IT was a week later that Professor Sharpe was able to talk, and later still before he heard the full details of the havoc wrought by his magnetic-beam projector. He listened in silence to Tommy's report. Tommy and Joan were sitting side by side and—rather unnecessarily—Joan held Tommy's hand clutched tightly while he went over every move in the campaign. At the end he told rather bitterly of the vanishing of the projector and its operator alike. The Professor's eyes widened and grew blank.

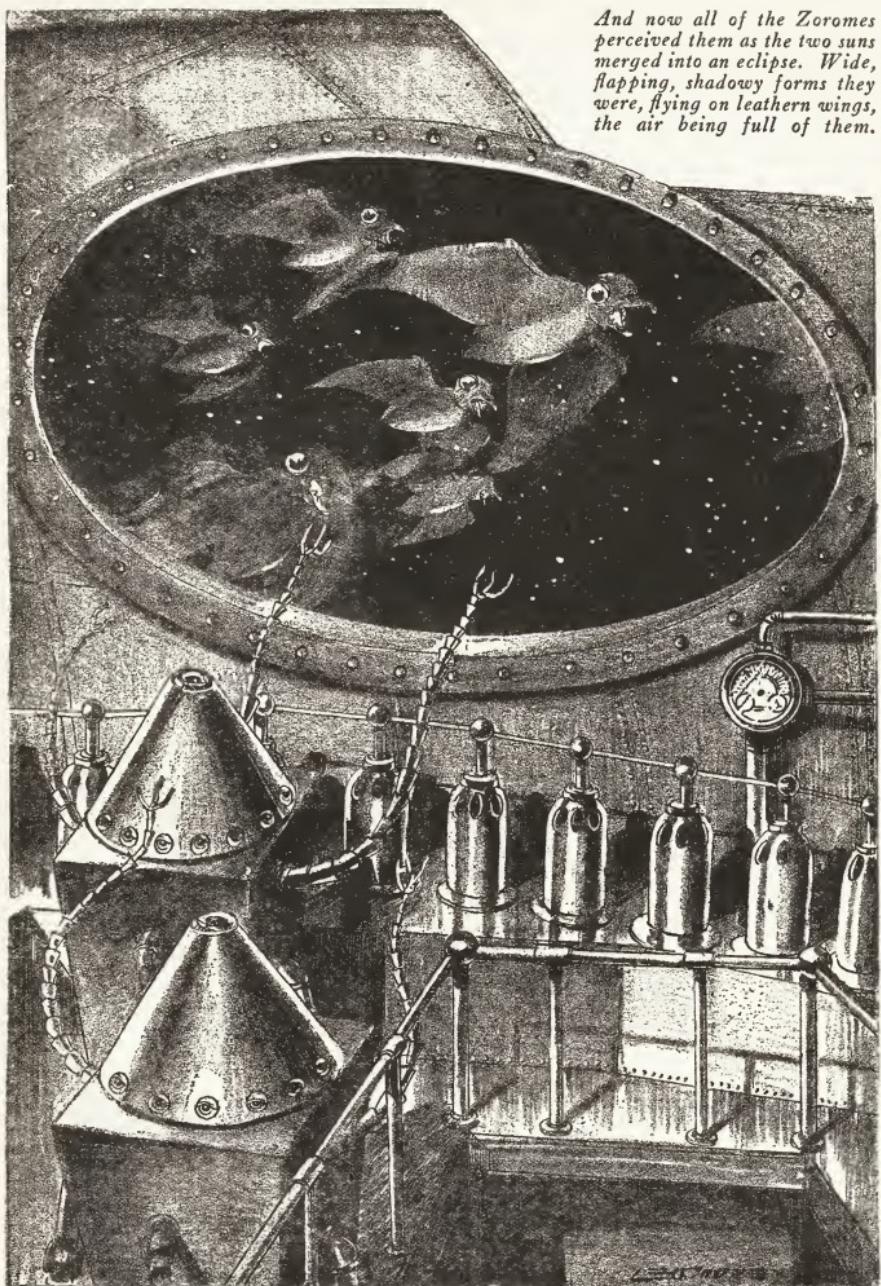
"Upward? Straight upward? Was there a plane up there?"

Tommy pulled a memorandum from his pocket. He spoke rather wrily, as if ashamed that someone else had thought of the most spectacular of all the feats of which the projector was capable.

"The moon was directly overhead, sir," he observed. "It was two hundred and twenty-five thousand miles away. If the projector was pointed at the moon's disk, the beam would reach the moon's surface in a little less than a second and a half and—well—sir, it has been proved that the moon has a magnetic field like the earth.

(Continued on page 1045)

*And now all of the Zoromes
perceived them as the two suns
merged into an eclipse. Wide,
flapping, shadowy forms they
were, flying on leathern wings,
the air being full of them.*



The Planet of the Double Sun

A Sequel to "The Jameson Satellite"

By Neil R. Jones

The Machine Men of Zor

PROFESSOR JAMESON stood in the fore of the space ship and gazed philosophically into space, ruminating upon the past, present and future, and upon the strange events of his life. How weird and unbelievable it had all been. Yet, here he was, one of the machine men of Zor, a convert of the dying world.

Forty million years had passed into the uttermost realms of eternity since that far gone day on which the professor, in the year 1950, had ordered his dead body enclosed in a rocket and shot into space on the belief that his corpse would withstand the rigors of time eternal. His funeral rocket had become a satellite of the earth, a cosmic coffin, pursuing its lonely way within the silent, restful graveyard of space, the endless vacuum between worlds—a meteor amid cosmic dust.

For more than forty thousand centuries, the body of Professor Jameson, true to his theories and predictions, had remained wholly intact, untouched by the hoary palm of time. The vacuum of space had preserved his dead body, and forty million years later, when the expedition from Zor had found him, he was in the same state as upon the day of his death.

Born of the sun's incandescent mass, the earth, with its sister planets, was destined to return to its death within the fiery globe. Following the venture of Professor Jameson, kept secret from the world by his nephew, Douglas Jameson, the world had continued its rapid strides in scientific progress until one day, centuries later, mankind had destroyed itself in a great war. Out of the reigning chaos, the remnants of agonized humanity had degenerated into barbarism and savagery, finally disappearing entirely from the earth.

Then there had come various other cycles of living beings who, in their various forms, ruled the earth for their allotted time and then, like mankind, had faded into dust and obscurity. There had been the ant-cycle, and the bird-cycle, as well as the Terseg invasion

IN response to the many and insistent demands for a sequel to "The Jameson Satellite," since it was published some months ago, we are glad to offer this unique tale, complete in itself, of Professor Jameson's adventures in interstellar space with his metal-bodied comrades of Zor, who resuscitated the professor in his man-made satellite, millions of years in the future. It is a thrilling story of scientific adventure and is even better than the original.

Illustrated by MOREY

from Mars. The latter represented a horde of queer animals with wings, who, being gifted with scientific intelligence, had, through necessity, journeyed across space to the earth, to escape the chill, dying atmosphere of the little red planet.

But to all this history subsequent to his death and journey into space, Professor Jameson had been completely oblivious. With the distant stars as his only companions, he had roamed in the state of death upon his orbit around the huge ball of the rotating earth.

During this entire period the sun slowly lost its heat as did the earth and the other planets of the Solar System. The earth's atmosphere became rarer, and slowly wasted away. Life did not find it easy to flourish as it once had. The rotation of the earth gradually slowed up, and, attracted by the sun's immense gravitation, gradually circled in closer to the solar luminary. The sun's great pull would soon draw its planets back to the flaming folds from which they had been hurled out on their career.

Then came the Zoromes, wanderers of the seas of space, who, in their space craft, passed the vicinity of the dying world. The machine men from Zor had discovered the strange rocket, and they had brought Professor Jameson back to life, removing his brain from the body, stimulating it into activity once again, and placing it in one of the metal machines.

The professor allowed his glance to drop from the darkness of space, studded with its fiery points, to his metal anatomy. A great metal cube upheld by four jointed, metal legs constituted his body, while six metal tentacles curled outward from the upper structure of the cube. A cone shaped head of metal surmounted the body, enclosing the brain. A series of eyes encircled the head, and one eye was in the peak, possessing the power of looking straight upward.

He was now a Zorome, one of the deathless individuals of a far-off world of the Universe. Millions of years ago the Zoromes had renounced their flesh and blood bodies and had invented the machines which knew

no death but only repair and replacement. Theirs was a life of eternity and continual adventure, and being given the choice of eternity or death, Professor Jameson, after a bit of hesitation and consideration, had thrown his lot with the machine men.

Blue and Orange Suns

GAZING once more into the boundless depths of the cosmic void, the professor, who had been labeled 21MM392 by the Zoromes, contemplated two close-set discs of light which the space ship rapidly approached.

Another machine man walked to the side of the professor and aroused him from his dreamy reveries by a telepathic observation.

"We are nearing one of the double suns."

"How weird and beautiful they are," said the professor, transferring his thoughts to his fellow Zorome. "One of them is a blue sun; the other an orange sun. Are there many of such?"

"Yes," replied 8B-52. "We have also found triple suns, each one of a contrasting color. Of course, even the double suns are not numerous, but among the trillions of suns in space they are not hard to find."

"I recollect," remarked Professor Jameson, "that the astronomers of my day and age viewed a few of them through their telescopes, but they were so far off, and the telescopes were so comparatively inadequate to cope with such inconceivable distances, that little was ever learned of the double stars, though they were known to exist."

"I have seen them before," stated 8B-52. "If you think the double suns beautiful, wait until you see their planets."

"I can imagine," mused the professor.

"You can imagine nothing compared to what you will see," returned the Zorome. "We are heading for the planet nearest the two suns. There are four planets to the system, and they all have their orbits about both suns. Occasionally, in the case of double suns, you will find that some of the planets revolve around each of the suns while others of the same system, having their orbits farther from the suns, revolve around both. The suns, as in this case, invariably revolve about a common center between them, passing completely around one another at intervals."

"That would tend to produce eclipses," said the professor.

"It would," agreed the machine man. "There would be no lunar eclipses, however, seeing that the first planet possesses no moons."

"If it did possess moons," ventured Professor Jameson, "what queer, varying effects of moonlight we might witness. There would be a full moon, one side colored blue and the other orange."

"We shall observe such a phenomenon from one of the other planets before we leave this system," stated 8B-52. "The second planet has two moons and the third one has four moons. The fourth and last planet, however, like this one, has not a single moon."

Together they gazed in rapt wonder at the fascinating contrast of blue and orange colors of the great flaming globes.

"Then we shall land on the inner of the four planets?" asked the professor.

"Yes, 21MM392," replied another of the machine men who had just come up and joined the two. He was the leader of the expedition, 25X-987. "It should be a novel experience, your first meeting with the planet of a double sun."

"I have had many a wonderful adventure with you since you took me from my rocket," said Professor Jameson appreciatively. "It is with keen anticipation that I look forward to this exploration before us. As you say, it will be my first sight of a planet having a double sun of bi-colors."

More of the Zoromes crowded about the three. The machine men were never tired of hearing the discourses of Professor Jameson. He was educated and had taken quickly to their ways and philosophy. He was an interesting figure among them, and in their emotionless, companionable manner they had grown fond of him. His viewpoint was that of an earth-dweller of some forty million years before, and his ideas, though sometimes appearing grotesque to them, were indeed unique.

And now they discussed the double sun and the retinue of planets as the space ship raced on at a fantastic speed ever nearer the bi-luminous of the starry heavens.

Time meant little or nothing to the Zoromes. They never slept, their bodies required no food or fuel of any kind, and there was no night or day in space. They took no trouble to measure time by any manner even though back home on the planet, Zor, the machine men kept a record of time by which they might measure history. The machine bodies of the Zoromes never irked them as flesh and blood anatomies would have done, and time being merely relative, as it truly is, passed swiftly for them. Monotony was an unknown quantity among the machine men of Zor.

The twin globes of the two suns gradually grew more flaming and brilliant as the space ship neared the inner of the four planets. The blue sun appeared slightly larger than its orange contemporary, though less brilliant.

A Wondrous World

SLLOWLY the space flyer of the Zoromes descended upon the planet of the two suns.

"How beautiful!" expressed Professor Jameson in awe. "What unparalleled splendor!"

"It is indeed so," agreed 25X-987.

The sunlight from the two suns, which were situated several million miles away from one another, presented an alluring color effect upon the side of the planet facing them. From one portion of the rotating planet, an observer would have seen the blue sun in the east just above the horizon, while the orange sun was just past its zenith. From another position upon the planet, it would seem that the orange sun was just sinking, while the blue sun rapidly neared its zenith.

It was at this latter point that the space ship came to rest upon the surface of the strange planet bathed in its unworldly glory. Looking down from the cosmic traveler far above the atmosphere, the surface represented a weird blend of blue and orange hues. The view upon the planet was even more vivid and alluring, the two colors blending, clashing and contrasting as the case might be, depending upon the nature of the topography.

The Zoromes left their space flyer and walked out upon this strange planet of kaleidoscopic beauty. In temporary silence they viewed the exotic magnificence

of the world they had come to explore—the planet of the double sun.

Never, thought Professor Jameson, had he seen aught to parallel its awesome, unearthly elegance. Truly, the mental vision of heaven by the early saints of Christendom could not have excelled this world of paradise for the optical senses.

A rolling, undulating landscape of hills and valleys stretched away in every direction. Beautiful trees grew out of a luxuriant riot of vari-colored vegetation, their tall tops bending over on every side, feathered festoons of misty, trailing creepers adorning their branch ends swaying ever so gently in the breeze. Many shades of moss carpeted the lower extremities of the massive tree trunks, while in the upper foliage of the forest giants, birds of lovely feather and plumage trilled sweetly or else echoed strange calls entirely foreign to the ears of the Zoromes. Lovely shrubbery, interspersed here and there with open spots of violet sward, dotted the landscape as far as the eye might reach. Flowers of gorgeous hues bedecked the sun-kissed hillsides, their lovely heads nodding dreamily, as if welcoming these strange creatures to their wondrous world.

From where he stood with his companions upon a comparatively lofty eminence, Professor Jameson gazed out over a silent sea whose waters spread away to meet the far distant horizon. The crystal clear atmosphere of the planet appeared to be of a rarefied nature, or else it supported little dust, for several stars of the first and second magnitudes were clearly visible within the sapphire vault of the sky's illimitable depths. The blue sun, being of a slightly fainter intensity than its lesser companion, now occupied the zenith, being not quite directly overhead, while the orange sun rested upon the watery horizon, preparing to sink out of sight.

The latter sun threw a rippling path of strange-hued rays across the violet-tinted ocean which lay calmly lapsing its flowered shores. It was such a lane down which one might have expected the immortals to have walked. Had the Zoromes been of a nasal sense, intoxicating fragrances of the verdure's surrounding blossoms would have crept up to them from the dense foliage bordering the sea.

The orange sun's burnished disc drew gradually toward the vague line which marked the blending of violet water with sapphire sky. The burning orb slowly sank among a few wisps of multi-colored clouds drifting on the far distant horizon of water like dim, ghost ships. Sinking, sinking, as if reluctantly bidding its blue contemporary farewell, it passed slowly into the translucent depths of the peaceful sea which lapped a distant shore.

And now, except for the orange and golden sunset, a wonderful, blue transformation took place, and many of the blossoms were seen to close their petals. It was a deep, somber blue, and the Zoromes felt a strange influence overcome them, as if an intangible presence held their minds in a grip of morbid imaginings. Like an oppressive mantle, it altered the previous cheerfulness of the beautiful world.

Near the shores of the ocean, the Zoromes had noticed thousands of rough, craggy protuberances projecting above the water line, literally thousands of them extending in heterogeneous array for some half mile from shore. Now, as the blue sun reigned supreme in all of its azure majesty, mysterious ripples broke the surface of the silent sea, and strange animals of the water crawled

out upon the miniature islands. They were medium-sized creatures, fully half the size of the machine men, and were equipped with eight flipper-like appendages.

Raising their heads to the blue orb in the sky, they voiced in unison a weird, wailing cry, which rang dismally in the ears of the Zoromes.

"This is nearly as oppressive as your dying world, 21MM392," spoke 25X-987, addressing the professor. "What a contrast there is here between the shining of the orange and blue suns and the blue sun alone."

"I should say that it was much more oppressive here at this time than on the dying world which you called Earth," observed 72N-4783, an eminent philosopher of Zor. "I have the feeling that there is an unseen presence about us."

"Perhaps it is the influence of the blue sun and the dismal wailing of those water animals," suggested Professor Jameson.

"No," replied 25X-987. "Such things do not affect us. We are too accustomed to strange scenes for that. We shall journey over the planet and see what we can find."

"In the space ship?" asked 9G-721.

"No. We'll leave the space ship here with half our number. The rest of us will explore, using the mechanical wings."

Exploration

AND so it happened that half of the Zoromes, twenty-five in number, were detailed to stay with the space ship while the remainder, including 25X-987 and Professor Jameson, went upon an extended journey of exploration over that part of the planet in the vicinity of the interstellar flyer.

With the mechanical wings attached to their metal bodies, the Zoromes flew low over the surface of the planet, and were soon far from their companions and the space ship. The wings were capable of propelling the machine men at a fast rate over the surface of the world, and they traveled steadily with few stops until the setting of the blue sun.

Then there fell an intense darkness, and down from the sky gleamed a multitude of fiery stars. There they stretched across the dark expanse of heavens like the flaring sparks of some mighty, universal conflagration, which, in a literal sense, they truly were. It was equally true that among their flaming sparks there were many dark, cooling embers which had once been brilliant sparks themselves. Of the latter rank was the earth, one of the cold, dead cinders, and soon its cooling sun would also become a burnt-out ember. Such is the law of the Universe.

With the setting of the blue sun, the Zoromes descended for a conference.

"The night will not be long," said 25X-987. "The orange sun will soon rise."

"The planet has three times as much daylight during the present situation of the suns as it has darkness," spoke 8B-52. "The suns revolving about one another give to their planets different phases of daylight as well as the varied periods of daylight and darkness. There is usually more daylight than darkness in the case of these double suns, but occasionally the two periods of daylight and darkness are equal. The period of darkness is never longer than the period of daylight, unless the planet's axis is tipped as was the earth's."

"I do not experience that uneasy feeling since the blue sun went to rest," mentioned 72N-4783.

"Nor I," exclaimed 9G-721.

"It has something to do with that blue sun," said 25X-987.

"When the orange sun is not in sight," added the professor.

"We shall find out the reason before we leave," stated 25X-987.

The Canyon of Death

TRUE to 25X-987's prediction concerning the rising of the orange sun, it was not long in coming.

First there was a suggestive lessening of the darkness in the east, followed by a bronze haze which gathered rapidly until in a burst of glory the flaming orb of the great sun broke above the horizon.

Under the dazzling brilliance of the solar orb, the Zoromes took to the air once more, continuing their tour of exploration. They found they were approaching a comparatively barren section of the planet. Deep canyons lay below them, and there grew but little vegetation.

25X-987, followed by his twenty-four companions, soared down out of the sky and into the deepest canyon, the high, rocky walls rising far above the Zoromes as they flew lower and lower into the depths. Professor Jameson judged the bottom of the rocky defile to be some two miles below the surface. Farther and farther they sank within the cavernous maw of one of the great scars which extended across the face of the planet.

Finally the bottom was reached, and the machine men of Zor found themselves in a semi-darkness which had not yet been penetrated by the sun's rays. Indeed, the suns would of a necessity be high in the heavens to send their rays down into the long, ragged pit in which the Zoromes now found themselves.

"Look!" exclaimed 9G-721. "It is a pit of death! See the bones!"

Following the wave of 9G-721's tentacle, the rest of the machine men saw that the floor of the canyon was littered with white, gleaming bones. They were strewn about profusely, and in the semi-gloom of the deep canyon shone pale, mysterious and forbidding.

"What could have occurred here?" asked the professor. "Surely, it must have been a wholesale destruction of life."

25X-987 gazed in rumination at the moldering bones. "I wonder," was all he said.

Eagerly, the machine men inspected the bones carefully, attempting a reconstruction in their vivid imaginations concerning the probable appearances of the dead creatures. How might the living possessors of the bones have looked? What sort of animals were they, and why had they died in such wholesale numbers? Ah, it was a mystery, and if there was anything of which the Zoromes were inordinately fond, it was mystery. They searched for evidence of weapons used in the slaughter, but they found none, enhancing the obscurity of the situation.

The machine men spread far out, examining both sides of the canyon, but there were only the white heaps of bones to mock them.

"They were creatures who walked on three legs," informed 8B-52, who had been spending his time with another of the Zoromes examining the bones. "They pos-

sessed three upper appendages, but they were not tentacles."

"The upper appendages were more like those of 21M-392 when we found him in the rocket," spoke 5F-388, the other machine man who had been inspecting the bones. "They were jointed."

"Like my arms, you mean," supplemented the professor.

"Yes, that's it," affirmed 5F-388.

"Do you find the bones of any other creature besides those of the Tripeds?" asked 25X-987.

He received negative replies.

"It would seem then that it was a battle which involved but one species," observed 965A-10.

"Not necessarily," countered 25X-987, enjoying the mystery of the situation. "The victors of the fray could possibly have emerged from the conflict unscathed, or else removed their dead. We do not know as yet whether there was a battle. These creatures might have died of a plague."

"I am certain they were intelligent beings," spoke one of the Zoromes. "We found these articles on some of them."

He extended to 25X-987 several small, metal articles. One of them was a curiously formed ring which had been taken from a digit, or finger, of one of the Tripeds' upper appendages. The Zoromes gathered around their leader to examine the trinkets. They were especially interested in the ring.

"There is some sort of an emblem upon it," spoke the professor.

"Three double suns!" exclaimed 25X-987. "What do you suppose that——"

965A-10 did not finish his telepathic speech which was suddenly interrupted by a message from down the canyon. Incessantly it rang in their minds.

"Come! I've found something!"

CHAPTER II

The Tripeds' Bones

THE Zoromes, as one man, made their way quickly to their companion, who had announced his find, some of them running rapidly on their four legs while others took to the air, their mechanical wings gliding them rapidly through the crystal atmosphere of the planet.

Quickly they swarmed about the machine man who had summoned them. He stood before the canyon wall, pointing upward.

"Hieroglyphics!" exclaimed Professor Jameson excitedly.

There, upon the wall, were carved and painted an intricate set of pictures and symbols.

"What does it mean?" asked 9G-721.

"That we must decipher this and perhaps learn of the fate of the Tripeds," replied 25X-987.

"Look!" spoke the professor, waving a tentacle at a scrawled figure upon the wall. "There is what the Tripeds looked like! See—the figure has three legs, and there are also three jointed arms!"

"And there above him are the two shining suns," said another of the machine men, pointing out the solar orbs upon the wall of rock.

"He is running," observed 72N-4783.

It was even as 72N-4783 had said. The Triped was sketching in the act of running, casting a fearful glance over his shoulder. Nothing pursued him, however, and the Zoromes were at a loss regarding the reason for his flight.

"Here is another picture," stated one of the machine men, "and it seems to bear a connection with the other in some respects."

"Only one sun is shining in this picture," stated 25X-987.

"The blue one," commented the professor.

"And the Triped is falling down dead!" exclaimed 3R-579.

The engraver, who had put the pictures upon the canyon wall, had executed this particular sketch with masterful skill. Still casting a fearful look of terror and anguish over his shoulder, he was in the act of pitching forward dead. Around him lay many other silent companions who had fallen to rise no more.

The Zoromes now contemplated the next picture group. It was a strange one. One of the Tripeds was depicted in the act of leaping off the heights of a rugged cliff. Another, with upraised bludgeon, was about to crash it down upon the skull of a comrade, while others, apparently horror stricken, rushed forward to foil the consummation of the terrible deed. Above this scene the blue sun held sway.

The last group of pictures was the strangest of all. The orange sun shone brilliantly, surrounded by a blue ring. The Tripeds were shown running hither and yon, while above them in the air flew dim, shadowy, menacing forms. The Tripeds were evidently trying to avoid them.

"What does it mean?" queried several of the machine men.

"The two suns are in eclipse for one thing," said 25X-987. "As for those creatures in the air, we have not met them here as yet."

"We have seen but few creatures of any kind, come to consider the matter," observed Professor Jameson. "There were the water animals who voiced their weird cries, and we have seen many birds of varying species, but do you know that in all our traversal of the forests we have seen no animals?"

"That is true," mused 72N-4783.

They now inspected a new row of pictures above the ones at which they had been looking. In one picture the orange sun shone alone. Below it, the Tripeds were engaged in various peaceful duties. In the next picture, both the blue sun and the orange sun shone. The Tripeds were still engaged in the occupations of their everyday life. In the third picture, which was the last of that group, the blue sun shone by itself in the azure sky, and below it not a Triped was in sight. Only one object was visible, and this appeared to be a symbol of some kind. There was a round, white object, under which rested a six pointed cross.

Weird Symbols

IT is the skull of a Triped with three of the upper appendage bones laid across one another below it," explained 8B-52.

"The skull and cross bones," remarked Professor Jameson. "In my day and age upon the earth, such an emblem meant death."

"And that is probably just what this means too," con-

sidered 25X-987. "There is something sinister in that blue sun, though I am at a loss to know why it should be so."

"Then our morbid feelings we experienced beneath the sole reign of the blue sun were not our imaginations?" queried the professor.

"Never," replied 25X-987. "It is not like the Zoromes. That blue sun held some terrible menace over the Tripeds."

"Perhaps its rays killed them," ventured 43V-73.

"I doubt it," spoke Professor Jameson. "They appeared well and happy in the sunlight of both the solar orbs."

"But," argued 43V-73, "could not the rays of the orange sun have nullified the death rays of the blue sun?"

"Possibly," was the professor's partial agreement.

"Behold!" cried one of the Zoromes, pointing a long tentacle above them.

The attention of the machine men was focussed directly upward through the single eye in the peak of their heads. Far, far above them on the canyon's western lip there shone a blue haze.

"The rising of the blue sun!" exclaimed 25X-987.

The machine men of Zor followed the canyon's long, winding course. Sometimes it grew narrower and then again it would broaden out once more. Small side canyons now commenced to run into the larger crevice, many of them being far below the level of the main canyon floor, so that the Zoromes often looked into the dark, giddy depths of canyons within a canyon. Several times they found piles of bones of the long dead Tripeds, some of them crumbling to a white powder when touched. Occasionally they came across mysterious writings and illustrations.

One of the pictures appeared to warn all trespassers to avoid searching the canyon any farther. It was an ominous warning to go back. The symbol of the skull and bones lent it emphasis. But still the machine men followed the deep canyon's course, and now it commenced to get darker, and the crevices and chasms in the rocky floor grew more numerous, so that a good share of the time saw the machine men of Zor on the wing.

"The orange sun is setting," said 25X-987. "The blue sun has passed its zenith."

"Have you noticed anything peculiar regarding those suns?" asked the professor as he watched the ebbing glow of burnished bronze upon the high cliffs above them.

"They appear nearer," replied 25X-987.

"But they are not."

"No. It is merely their revolutions about one another."

"The distance between them never varies at any time."

"The orange sun has gone below the horizon," spoke 25X-987. "How beautiful it is when they are both shining, and how depressing and deathly when the blue sun shines alone."

Suicide and Tragedy

THE Zoromes continued on between the towering walls of rock. The blue, gloomy haze which now settled down about them like a dismal shroud of despair seemed scarcely to lessen the Stygian blackness, lending to it only an eerie, sombreous feeling of intense sadness.

"This is what one upon my planet in my day would have called 'giving a person the creeps,'" remarked the professor.

"It is queer," agreed 25X-987. "In all our millions of years of travel we have never before experienced such strange sensations, such indescribable and undesirable feelings. I believe it is what you explained to us as fear, 21MM392, that frame of mind we have never yet known."

"It might be termed that," replied Professor Jameson, analyzing the situation of the machine men. "Never having known fear before, you are not in a position to know whether or not your sensations are born of fear. I have known the sensation of fear many times in my past life upon the earth, and can readily recognize it. Our present sensation is not so much of fear as it is an ominous warning of danger which constantly disturbs our minds. Were it fear, my friends, we should experience the desire to depart from the canyon at once, spread our wings and fly back to the space ship. As it is, we have not the slightest inclination to do so."

The professor's logic was convincing.

Ahead of them there suddenly occurred a commotion. The Zoromes milled excitedly about the edge of a ragged pit.

"Seize him quick; he knows not what he does!" came the telepathic message ahead of 25X-987 and the professor who, absorbed in their conversation, had lagged in the rear.

"He's gone!"

"We were too late!"

"What's up?" inquired the leader of the expedition, flying quickly over the heads of those before him.

The professor followed swiftly behind him.

"7L-4208 developed a sudden disease of the mind, we believe!" came the reply. "He took off his wings, laid them down upon the edge of yonder crevice, and before anyone could restrain him, had jumped!"

"Head first!" added another of the machine men who had witnessed the mad act.

"Such occurrences are rare and do not happen for ages at a time!" exclaimed 25X-987. "Go down to the bottom of the pit, and see if he can be saved."

Swiftly, several of the machine men flew down into the darkness and out of sight. It was a long while before a reply came up to them.

"He is a mass of wreckage!"

"His brain! His brain!" inquired 25X-987 anxiously.

The leader of the Zorme expedition received an answer in three cryptic words laden with deep portent.

"It is destroyed!"

"7L-4208 is dead!" lamented 25X-987 in regret. "21MM392, you have witnessed something which is practically unheard-of—the death of a Zorme. Your coming added one to our ranks; now our number is the same as before. Evidently something went wrong with 7L-4208's brain, prompting him to do the rash, unreasonable act that he did."

"Either that or else it was the dismal influence of the blue sun," spoke Professor Jameson suggestively.

"Impossible," stated 25X-987. "We are not susceptible to such influences."

"Do you remember my sensations just before we left the dying world, and how near I came to doing the very same thing as that which 7L-4208 just did?"

"Certainly," replied 25X-987. "But you must remem-

ber that your mind is a great deal different than ours in structure, even if we do enjoy a mutual exchange of ideas. We are immune to any outward attempts to sway our judgment."

"Indeed," agreed the professor, "our minds are much different."

"Silence!"

The caution came suddenly from one of the machine men. Each and every Zorme halted and stood motionless that his passage over the canyon floor should emit no noise. The rattling, scuffing and clatter of metal limbs against rock ceased.

"Do you hear it?" asked the machine man strangely.

"Hear what?" asked 25X-987.

"Listen—there it is again!"

Mystic Sounds

AND now to the Zoromes there came a hum, a low, droning buzz as if from far off—yet very near. For a time it hung on a long, monotonous, doleful note, which gradually arose to a faint wail.

"What an awful cry that was!" observed 72N-4783.

"If I possessed bones, it would have chilled them," said Professor Jameson.

"Did you recognize how nearly the last half of that cry resembled the sound emitted by the water animals we saw on the tiny islets of the ocean?" asked 25X-987.

"Yes," replied the professor, "but that cry came from something else—not from the water animals."

"There it is again!"

"I hear several—they mingle together!"

"It is coming nearer!"

"From where?"

"Around the bend ahead of us!"

"No, from behind!"

"Out of the air above us!"

"From the walls of the canyon!"

"It emanates from all around us!" exclaimed the leader of the Zoromes. "How unusually excited my men have become! This is not their usual way! I too feel a tensity—it is strange."

In truth, the Zoromes were not acting like their usual selves. Excitement strode rampant among them. Some of the machine men betrayed a bit of nervous panic which was radically unlike them. Awe had supplanted their customary, stolid indifference.

Above, the blue sun now pouted its suffused light straight down into the canyon, its azure orb set like a flaming jewel in the depth of sky. Like a scattering of lesser gems, the fiery stars gleamed in riotous profusion beyond the circle of its aura of closer light.

The low buzzing and hum became more intense, and appeared to rise and fade all about them. Frequently the hum would rise and terminate in a dismal wail. They were the most deathly cries the professor had ever heard, and his companions, the Zoromes, seemed strangely affected.

"Help!"

The cry rang in the minds of the machine men.

"Help!"

With a tremendous leap, one of the Zoromes had repeated the act of 7L-4208, jumping into a deep cross canyon, his wings folded uselessly against his metal body. From the doomed man, there came an unintelligible gibberish mixed with wild thought pictures.

"He pushed them off!" elucidated 8B-52 excitedly to his superior who had leaped to the edge of the precipice. "22D-5 shoved 429C-257 and 98S-533 off the edge just before he himself leaped! The cry for aid came from 429C-267!"

"What madness is this?" asked 25X-987 in desperation. "What possesses my men?"

From the dark canyon's depth into which the three Zoromes had pitched to their deaths there issued a whirling noise. Up out of the gloom there hove a dark object which flew aimlessly in and out of the darkness a moment before it came to rest upon the edge of the pit.

"98S-533!" exclaimed several of the machine men simultaneously recognizing their companion.

"I spread my wings just in time to check my swift descent!" stated 98S-533. "Someone pushed me off as I was standing on the ledge looking down!"

"It was 22D-5!" informed 8B-52. "He also pushed 429C-267 just before he leaped himself!"

"This is terrible!" stated 25X-987. "There is a presence within this canyon whose menacing influence is irresistible. We must see if our two comrades are within our power to save, and then we shall quit this gloomy place."

22D-5 and 429C-267 were found to be irreparable. Their metal skulls had been crushed like egg shells.

Like a horde of departing birds, the machine men spread their metal wings and flew far up to where the canyon walls began, evacuating the blue depths of the immense crevice with its insidious humming and unseen, haunting death which played grimly upon the minds of the space wanderers.

"I have never encountered such a horrible place as this before," deplored 25X-987 to the professor, as up through the air they coursed far above the canyon. "We have met and overcome much flesh and blood opposition in our wanderings, and we have successfully repulsed the attacks of scientifically organized beings of other planets without casualty to our ranks. Here is an enemy or invisible entity which wrecks death by suggesting a self-imposed destruction."

"What are you going to do?" asked Professor Jameson.

"Return to the space ship, bring it up here, and with our scientific apparatus discover why our comrades plunged to their deaths. We shall then remove the menace, whatever it is."

The Insidious Menace

A CALL came from the rear. "We are short four men!"

"We must go back," stated 25X-987, "and rescue them!"

"27R-410 is beyond rescue!" stated one of the machine men. "When we had arisen half way up through the canyon, he unscrewed his head and threw it back into the depths! His body flew onward aimlessly for a ways before it crashed into a canyon wall and smashed to pieces!"

"We must go back!" repeated 25X-987 resolutely.

"To return is death!" impressed Professor Jameson upon his friend's mind. "We shall return in the space ship if we return at all! It is rash suicide to turn back! You saved me from that once, and now I am determined to save you!"

"You are right, 21MM392," agreed the leader of the space expedition finally. "We must leave this vicinity as soon as possible. Our group now numbers eighteen. We must hurry back to our comrades."

Swiftly they flew back over the barren country of the canyons. Beneath the smoldering glow of the blue sun they saw afar off on the horizon the thin line of vegetation which marked the beginning of the great forests.

"That sound—that terrible humming sound!" warned 25X-987. "I hear it again! We are being pursued! Put on speed!"

"It is no use," declared Professor Jameson. "The terrible sound comes from before us as well as from behind us."

"Let us gain the space ship where we are certain we shall be safe."

"We'll be much safer when that blue sun has set," opined the professor. "You know, I believe that some form of radio activity emanating from that blue sun is responsible for all this."

"Would it create that humming noise as well as bring disorder and death into the minds of my unfortunate men?"

"Perhaps."

"We shall find out."

"Where are the rest?" asked the professor, looking back.

"There is no one behind us."

"We have flown far ahead of them," observed 25X-987, "unless——"

"Unless they have succumbed to the menace," finished Professor Jameson.

25X-987 sent out a call. There came an answer from behind, and as the two machine men wheeled in the sky they perceived upon the horizon three black dots which rapidly overtook them. They proved to be three of the Zoromes.

"Where are the others?" asked 25X-987. "There should be thirteen more of you."

"They dove to their destruction along the way back!" exclaimed 8B-52. "This is a veritable death hole!"

"Were they attacked?"

"No. Either something happened to their wings or else they left us voluntarily."

"Some of them flew madly into one another, cleaving each other's wings off and thus ending their lives," said 305N-56. "I could declare that some of those accidents were no more than vicious attacks. They were completely demoralized. It occurred just after you and 21MM392 forged ahead of us and out of sight."

"This is the worst yet!" ejaculated 25X-987. "Thirteen of them—I have lost twenty now!"

Struck dumb by this latest tragedy within their ranks, the five remaining Zoromes winged their way rapidly back over the luxuriant forests and dense verdure toward the space ship and their companions they had left with it. And as they sped on over forest, hill, valley and stream, the blue sun set in a murky haze of azure, bringing on the darkness.

The Zoromes immediately felt a peace of mind as the blue orb disappeared below the horizon. The malignant pressure upon their minds abated, and no longer did they sense the sad promptings of the evil influence. The humming in the air had ceased a short while before sunset.

CHAPTER III

Death's Feast

PRESENTLY they neared the space ship, and as they did so the telepathic communications came thick and fast.

"A terrible thing has befallen us while you were gone!" stated a voice from the space ship. "We are nearly wiped out—but two of us remain!"

"What happened?" demanded 25X-987, fearing the worst.

"A strange thing occurred among us! Our comrades went crazy mad, killing each other and themselves!"

"You mean—you mean—during the reign of the blue sun?"

"Yes—that was it!"

"And were there humming noises?"

"Many of them—and the water animals came up and wailed."

"There are but two of you remaining? What happened to the rest?"

"Some of them are at the bottom of the ocean," replied 69B-496. "They flew above the rocky crags and disappeared under the surface when the water animals voiced their weird cries. Then, too, several of them smashed in each other's heads in hideous combat. 4C-9721 even spread death among us with the ray gun before we overpowered him. He later answered the lure of the wailing water animals. He is somewhere out there."

69B-496 pointed a tentacle into the darkness toward the silent sea with its rough, jagged islets.

"They were possessed of the devil!" exclaimed Professor Jameson.

"What do you mean?" queried 25X-987.

"Merely an earthly expression which at present comes nearest to solving the situation."

"Where are the rest of your tentacles?" inquired the leader of the Zorome expedition, glancing over 69B-496. The latter machine man stood before them with but two of his six tentacles remaining. In place of the other four, there projected only ragged, metal stumps.

"The ray gun wielded by 4C-9721, did it," replied 69B-496. "It cut a clean swath clear through 149Z-24, but luckily it didn't hit his head, and he can be repaired."

"Bring me down," issued a new voice, breaking in upon the thought transmissions of the machine men.

69B-496 reached upon a shelf and brought down the peaked head of a Zorome who opened and shut his metal eyelids a few times.

"Place his head on a new body," ordered 25X-987.

"It was horrible!" exclaimed the head of 149Z-24 suddenly. "I saw them! I came near to going, and I saw them!"

"Saw them? Saw what?" queried 25X-987.

"I didn't get a good look at them, but I saw the things just the same."

"What things?" asked Professor Jameson.

"I don't know," replied 149Z-24. "They were dim and shadowy objects which floated about in the air. I had only a glimpse of them when 4C-9721 shot the ray gun among us. There seemed to be a fascinating, enticing lure they held forth to me. It was irresistible, and I came near to giving in and going when the ray gun cut through me. Then of course I couldn't and after a while the persuasion left me."

"Go where?" asked 25X-987 excitedly, eager to get to the bottom of the mystery. "Explain yourself! What were your feelings, and what made you want to go?"

"I really don't know," answered 149Z-24. "I never felt that way before. There seemed to be no definite incentive, and I do not remember any particular lure. It was a strong persuasion for me to give up thinking—that was all they asked of me—just to give up thinking. That humming and wailing was a voice—an audible voice, not a thought voice. Yes, there were the thought voices, too, but they appeared to linger in the background, as if waiting. The wailing and humming voices were the more insistent."

"Hypnotism!" explained Professor Jameson. "Strange creatures are hypnotizing our forces to extinction!"

"Yes, but what are they?" asked 25X-987.

"And where are they?" added 69B-496.

The Mystery Deepens

"**2** 5X-987," warned the professor, "we now are but seven where we came fifty-one. I advise that we leave at once to avoid complete extinction."

"But they can't get us inside our space ship, and I am going to return to the canyon of the bones to see if our companions are really beyond recall. I shall also solve the mystery, and wreak out revenge upon whatever creatures that have killed my comrades."

"Your revenge will but lead you on to destruction," stated Professor Jameson.

"But perhaps our companions, who fell back into the canyon, may not be past rescue," entreated 25X-987.

"We should investigate that most assuredly," stated the professor, "but I wouldn't do it while the blue sun shines alone in the sky."

"That is the mystery," mused the leader of the Zorome expedition. "What has the blue sun to do with it?"

"I would forego the satisfaction of knowing," warned the professor. "It would mean stepping into a death trap."

The seven Zoromes prepared for the return trip to the canyon of the dead. The head of 149Z-24 was mounted upon a new body, and new tentacles were placed on 69B-496.

The orange sun had peeped above the eastern horizon, and now the planet of the double sun was once more transformed into a vision of celestial loveliness, a veritable Garden of Eden.

The space ship cruised far above the weird forests with their bright plumed birds and queer lack of animal life. Off toward the barren canyon of death they headed. It was only a short time after the rise of the orange sun that the blue sun hove into view, following closely upon its contemporary.

"See how close together they are," observed Professor Jameson.

"Yes," said 25X-987. "Before the sunset, there should be an eclipse."

"The orange sun is the more brilliant of the two, even though it is a bit smaller," spoke the professor. "When the orange sun comes between the blue sun and the planet, there will be a blue ring around the orange sun."

"There is the canyon," said 25X-987, pointing to the barren lands far below where a great ragged rent cut the surface of the strange world, disappearing into the far flung horizon.

Under skillful manipulation, the space flyer was lowered into the ominous depths of the shadowy canyon, the walls rising menacingly as if ready at any moment to close in upon the space ship of the machine men, crushing it beneath millions of tons of rock debris. Or so it seemed to Professor Jameson who felt ill at ease, and was possessed of grim, gloomy forebodings.

Slowly they settled down upon the canyon floor among the white clumps of scattered bones, many of which crunched hollowly beneath the dark hull of the space ship.

"Search up and down the canyon," ordered 25X-987. "See if you can find the remains of the thirteen men we lost in leaving the place."

The search was made, and remains of most of the dead Zoromes were found. Their metal bodies and brain cases were discovered smashed and crushed where in their mad plunges planetward they had come into contact with the rocky terrain.

"We are safe from the devastating death as long as the orange sun accompanies the blue sun in the sky," warned Professor Jameson. "To remain when the blue sun shines alone is rank suicide. Every one of our companions either killed himself or was killed by a comrade. None of them was killed forcibly by anything on this planet, yet some compelling influence drove them to suicide. Now that we know our friends to be unquestionably beyond our aid, I would advise most urgently that we leave at once."

"Not until I know, and have been at grips with, whatever killed so many of our men!" stated 25X-987 firmly.

"To remain is death!" counselled Professor Jameson.

"But we are now prepared, where before we were taken unawares," said the leader of the expedition from Zor. "We shall build up a mental resistance against the menace which seeks to derange our minds."

The Eclipse

BEWARE!" warned the professor. "I can now understand the reason for so many white bones in the canyon! The Tripeds died of the same malady beneath the terrible rays of that damnable blue sun as afflicted your men!"

"We shall meet and destroy the menace!" was 25X-987's ultimatum. "Remember that we are Zoromes!"

"And that forty-four of us have fallen prey to the unseen evil within the last rotation of this planet!" reminded the professor. "Confidence has supplanted your caution entirely, 25X-987!"

"The suns! The suns!" exclaimed one of the machine men suddenly. "They are touching!"

"The beginning of the eclipse!"

"The orange sun is crossing before the blue one!"

A small tip of the blue sun had already disappeared before the encroaching, orange orb, and very gradually the great solar spheres moved into conjunction with their first planet.

And then upon the ears of the machine men fell a faint humming noise which increased in volume and intensity.

"The death call!" exclaimed 149Z-24 excitedly. "It is the death call!"

Now, there came several wails, rising to a more piercing pitch than the Zoromes had yet heard them during their brief stay upon the planet.

"Into the space ship!" commanded 25X-987.

Eagerly the machine men obeyed the order. But even within the space ship the dismal howls and terrible humming vibration were heard. Every now and then there occurred a wailing noise which apparently issued from within the space ship itself, drifting suddenly back to the outside once more, as if the author of the hideous sound had passed through the walls of the interstellar craft.

"Look!" cried 69B-496 in alarm. "I see them! I see them plainly!"

"Where?" queried the machine men in unison.

"There!" exclaimed the Zorome, pointing above him with wildly waving tentacles.

"The shadows!" exclaimed 25X-987. "They are the shadows which fly about!"

And now all of the Zoromes perceived them as the two suns merged into an eclipse. Wide, flapping, shadowy forms they were, flying on leathern wings, the air being full of them. Queer, round heads surmounted the bat-like bodies. A pair of bright, gleaming eyes were set in the head, while below them from a wide distended mouth issued the frightful wails and dismal humming.

"You can see right through them!" ejaculated the professor.

"And they are flying through the rock walls!" added 8B-52.

"Here comes one of them for the space ship!" warned 149Z-24.

Directly toward the space flyer from Zor the ghostly creature flew, and with a piercing wail came right through it as if the ship had not been there. The phantom swooped straight down toward 25X-987 and Professor Jameson where they stood a bit apart from the rest of the Zoromes. It enveloped them and passed, the two machine men being clearly visible to their companions all the time. The wraith continued on and out of the space craft, leaving the two machine men standing together in surprise and consternation.

"The thing passed right through us!" exclaimed 25X-987 in surprise. "It must be an optical illusion!"

"That medley of sound they are making is no illusion," said the professor. "I am not superstitious, but I believe that here is something entirely beyond us. We had best leave while we may."

"Turn the ray guns upon them!" commanded 25X-987, gazing upward through a transparent section of the space ship at the horde of encircling bird creatures.

The machine men obeyed his bidding, and presently several iridescent fingers of light were probing upward to where the ghostly creatures wheeled and circled on the wing. Where the destroying rays touched the canyon walls the rock disappeared, leaving dark holes, but the rays had no effect whatever upon the phantoms who continued their aimless course above the space flyer.

Amid the Phantoms

VOICING their weird, depressing cries, they gazed downward upon the space ship of the Zoromes, regarding it with a solemn mien.

"They resist the ray!" cried 305N-56. "It leaves no impression upon them!"

"Seize 149Z-24!" cried 69B-496. "He has gone mad!"

Several of the machine men seized their companion, who had staggered towards a section of the craft's deli-

cate mechanism with an upraised metal bar, evidently bent on destroying the apparatus.

"Those creatures have his mind in their power!" exclaimed 25X-987. "Quick! We must get out of here! Rise out of the canyon immediately!"

Swiftly the space ship arose from the floor of the canyon, leaving the pathetic piles of scattered bones far below. Through the midst of the phantoms they passed, not so much as perturbing them in the least. Back and forth they flew in the space occupied by the interplanetary craft as if it were not there.

A singular fact which Professor Jameson noticed concerned the queer conditions regarding the passage of the phantoms through an opaque object. Though possessed of the ability to disappear within the solid walls of the canyon, and the power to fly through the space craft at will, Professor Jameson saw that they never flew through one another. Often their wings would strike together in contact, placing either one or else both of the creatures off balance temporarily. How queer, he mused. The phantom creatures who voiced their evil, menacing cries were barely visible, it being possible for the professor to discern the cliff wall through their semi-transparent bodies.

The space ship flew above the ghostly crew, but their weird calls still lingered, and the Zoromes were possessed of the forlorn and dejected spirits which had previously been engendered by the blue moon. At a far height above the canyon the leader of the Zoromes ordered the space craft to be halted. He had no sooner stopped the ship than from below there came the humming sound which the machine men had now come to regard in loathing and disgust.

"They're coming!" admonished 305N-56.

"Wait!" ordered 25X-987 in a strange manner. "Don't start away yet!"

From below, two of the dim apparitions flew up around the space craft, flying back and forth through it several times, giving voice to their sepulchral wails, the solemnity of their faces entirely free of changing expression. As they flew about the interplanetary ship, through the machine men, and through any solid object they encountered, the phantom creatures grew dimmer and dimmer, until they were entirely invisible. Only their weird cries were heard, and these grew faint and dwindled away.

"The orange sun is nearly past the blue one," observed 8B-52 after the last faint hum had died out.

"The eclipse is nearly over," spoke 69B-496.

"What manner of creatures could those things have been?" pondered 25X-987.

"I believe that I have the secret at last," said Professor Jameson with gravity. "I have solved the riddle of the blue sun and the deaths of our companions."

"What is it?" asked 25X-987 eagerly. "Speak, 21M-M392!"

"With all your super intelligence," stated Professor Jameson, "I don't believe you would have ever solved the problem. During all of your millenaries of exploration among the cosmic realms of space you have never encountered the likes of such circumstances as we find on this planet of the double sun. With all your super knowledge, you lack the one item of experience which my earthly life gave to me quite coincidentally, and which now places me in a position to understand the amazing circumstances through which we have gone.

Professor Jameson Explains

WHERE we stand upon this planet there are really two worlds—the world we see about us now and the world of the phantoms. The world of the phantoms, however, is in a different dimension than this one, being upon a different light and color vibratory scale. The creatures we saw are not really phantoms in the literal sense of the word. They merely appear as phantoms to us, just the same as we do to them. They are of concrete proportions in their own plane of existence, even as we are real in our own life.

"When the blue sun shines alone, it exerts a strange color and vibratory effect upon whatever part of this planet it strikes. It produces the strange character of partially bringing together these two worlds, each of a different dimension. The presence of the orange sun neutralizes this effect. The depressing influence of the blue sun which we noticed so quickly is due to the fact that it brings together the sound and thought transferences of these two worlds. The strange quality of the blue rays has not the power to bring the two worlds into bodily contact, however, and that explains the reason for the phantoms flying through the opaque objects of this world.

"When the blue sun is alone in the sky, the voices and thought transferences of the two worlds mingle as one. The strange apparitions from the other world of this planet are responsible for the deaths of our companions as well as for the wiping out of the Tripeds.

"Do you remember the drawings we found on the rock walls in the canyon of death? Everything was depicted as peaceful beneath the reign of the orange sun alone, as well as during the shining of both suns, but under the spell of the blue sun, we saw a great havoc wreaked among the Tripeds. Suicide and murder stalked rampant among them, and death finally took its toll of the entire race just as it destroyed our companions.

"Then we saw the illustrations of an eclipse of the suns, the blue sun being eclipsed by the orange one. Beneath it, we saw the Tripeds pursued by this malignant horde of shadowy appearing birds, phantoms such as we just saw. They are visible to us only during an eclipse. A mysterious action of the blue rays around the orange sun during an eclipse brings about a partial visibility of this hidden world, though I truly believe that while the blue sun shines solitary the denizens of the other world can always see us. It stands to reason.

"The creatures we saw from the other world are of a warring, destructive nature. By a hypnotic power peculiar to them, they seek to destroy the animals of this world by mentally reaching across the boundaries separating the two planes of existence and wiping them out by overpowering, mental suggestions of murder and self-destruction. This power, as you have already witnessed, is great enough to even counterbalance the super-intellect of a Zorme, though I believe that they themselves are possessed of no great intelligence. Their propensity for hypnotism is not necessarily derived from a magnitude of brain power. I believe it to be a birthright similar to that of the electric eel of my own planet about which I once discoursed to you. Hypnotism and occult power is their birthright even as the power to exude electric shocks is the eel's natural ability."

"Why didn't they kill the birds we saw in the forest, and also the water animals?" asked 25X-987, greatly

impressed by the professor's impressive conclusions.

"That I can't say for sure," replied Professor Jameson. "It explains the lack of animal life in the forests. As to the birds, I might venture the suggestion that they are so much like the creatures of the other world that they have sentimentally been spared. Perhaps the water animals' environment renders them impregnable to the suicide inducements of the other world entities. Then again, they may have something in common with them. Their cries were similar, and they emerged from the water only when the blue sun shone alone."

"You are a genius, 21MM392!" exclaimed 25X-987 admiringly.

"Not necessarily," said the professor. "You see, when a young man at college, I was very much enthused at one time in hypnotism, and though unable to exercise it myself, I read a great deal concerning it."

"With all our traveling from planet to planet—from sun to sun—from system to system—we have never before come across what you call 'hypnotism'. I can readily perceive that it is the keynote to this mystery, and were it not for you, the puzzle would forever have remained unsolved."

"And can you now understand why it is imperative that we leave at once?" asked the professor, gazing apprehensively at the blue sun. "Even now the orange sun has passed from before the face of the blue one, and is sinking beneath the horizon."

"Now I realize how 149Z-24 saw the shadowy forms when he came near to answering their lure," said 69B-496. "The light from the ray gun combined with the blue sun's rays and the fact that he was under the hypnotic spell gave him the power of vision to see them."

"We must hurry from here," announced 25X-987 gravely. "21MM392 has spoken correctly. It is death to remain!"

CHAPTER IV

The Juggernaut

THE space ship rose upward on a slant, and as it did so, the orange sun, whose great shining sphere had rested half above and half below the horizon, sank out of sight. The blue sun now occupied the sky, and it would not be long before it, too, would follow its orange contemporary to rest.

Almost immediately, with the cessation of the orange sunshine, there arose upon the air the vibrant humming accompanied by its concert of sad wails. The volume of sound swelled up and around the speeding space craft, and the apprehensive Zoromes knew that in, out of and around their ship, the ghostly creatures from the invisible dimension flew, eager to lure them to self-destruction.

"Keep control of your brains!" exclaimed 25X-987 wildly. "Concentrate as you never have concentrated before, or it is certain death!"

One of the horrible wails directly at their ears came to mock the machine man's command. Swiftly the space ship sought to leave the heavy atmosphere.

Somewhere below in the control room there came a rending crash of metal. Professor Jameson and 25X-987, in company with 8B-52 and 69B-496 rushed into the compartment to ascertain the cause of the furore.

"149Z-24 has broken loose!" ejaculated 372V-22.

The machine man who had spoken was firmly holding his mentally deranged companion with a grip of entwined steel tentacles.

"Put him in the buckler!" ordered 25X-987. "We have no time to waste if we are to leave this accursed planet of the double sun!"

But the order was never executed. All at once there occurred throughout the space ship a terrific shock. With a terrible impetus of increased motion, the interplanetary craft multiplied its speed and whirred madly on through the dense atmosphere of the globe. The Zoromes were sent tumbling to the floor, their metal bodies and limbs rolling into grotesque heaps at the far ends of the space craft chambers.

Hurriedly they regained their feet.

"The ship will crash!" exclaimed 25X-987 wildly. "149Z-24 has broken the controls of the mechanism which regulates our speed! We are doubling speed every moment!"

"We'll crash or else burn up in the atmosphere like a meteor!" cried 8B-52.

The wind of their passing whistled eerily around the space craft. The shrieking arose to a hissing roar as the space flyer of the Zoromes rapidly gained speed on its mad rush through the sea of crystal ozone.

"Where are we heading?" asked 25X-987, expecting to be smashed into atoms at any moment. 69B-496 glanced at a dial.

"We are pursuing a long arc, in relation to the planet," he said.

"Upward or downward?" asked 25X-987 in mingled hope and dread.

"Downward!" came the hope shattering reply. "The curve of the arc is slightly greater than the curve of the planet's surface so that in view of our present altitude we shall not crash right away."

"But in that time we shall be burnt up with our space ship!" cried 305N-56, his tentacles waving excitedly.

"The friction is becoming terrific!" exclaimed 25X-987.

"There is nothing we can do but wait for a miracle!"

"Or death!" added Professor Jameson.

The hissing roar had climbed the scale of sound vibrations until it was now a terrible whine. The space ship juggernauted on through the planet's atmosphere, carrying the seven machine men to perdition in its inevitable crash which the passing time brought rapidly nearer.

"It is the end!" prophesied 372V-22. "The accursed planet will claim us all!"

25X-987 appeared to have lapsed into a strange stupor, a dazed condition. He said nothing.

"We are halfway there!" came the notification of 69B-496 at the dials.

Super-Hypnotism

A WAVE of suffocating heat swirled through the interplanetary craft. The friction of the terrific speed was beginning to manifest itself. It appeared to be a race between the atmosphere and the lithosphere, to see which would claim the space ship first.

"There is nothing we can do," came the resigned observation of Professor Jameson, "but——"

"Leap!" came the startling thought wave from the crazed 149Z-24. "Leap!"

"Leap!" echoed 25X-987, a strange concourse of thoughts mingling with the suggestion of 149Z-24.

"Leap out before we crash!" cried 149Z-24 wildly. "Save yourselves from sure death!"

"Leap out!" mused 69B-496, turning the matter over in his mind.

"Yes!" exclaimed 149Z-24 enthusiastically. "It's the only way!"

"The only way!" repeated 305N-56 mechanically. "Yes, it is the only way!"

"Come, jump out and be free!" urged 149Z-24.

"Stop!" cried Professor Jameson. "Enough! You are yielding to the will of the phantoms of the other world! They are leading you on to suicide!"

The machine men were oblivious to his warning. Evidently they had not heard him.

"Leap!" was 25X-987's only thought. It was rapidly nearing a conviction under the masterful hypnotism of the unseen creatures from another dimension. Already, they had made 149Z-24 their tool and devoted emissary and were largely spreading their insidious influence over the little group of machine men through him.

"The only way!" reechoed 8B-52.

"Cease!" pleaded the professor in a superhuman mental effort. "Do not yield!"

"I'll leap!" was the ultimatum of 305N-56, as if in reply to a request.

He moved slowly toward the door of the space ship. Professor Jameson sprang forward to bar the way. 149Z-24 was before him, however, and came to grips with the professor before he could reach the egress and prevent 305N-56 from leaving the craft. The machine man appeared to execute the act by no volition of his own, and Professor Jameson knew it to be another prompting of the hypnotic menace.

"Leap!" continued 149Z-24. "The only way!"

305N-56 moved to the space ship door, flinging it open. Had it been in the fore of the craft the onrushing atmosphere would have smashed him backward like a feather to the far end of the room, but the egress was in the rear. Without another thought impression, 305N-56 leaped out into the deep blue sunlight and was gone. Eagerly following suit, 25X-987 and 8B-52 moved toward the opening.

"Don't!" warned the professor in vain, madly attempting to struggle from the tentacled deadlock of 149Z-24. "You are crazy!"

A sickening feeling obsessed the professor as the two machine men jumped. 149Z-24 now said nothing, and the professor perceived that his mind was in a chaos of terrible resolves. The professor knew that he was viewing the destructive thought impulses of the flying phantoms. He no longer sought to check his companions' mad intentions, knowing full well that it was useless. Helplessly he looked on as 69B-496 and 372V-22 took the fatal leap.

And now 149Z-24 released the professor suddenly and backed away. Was he about to leap too? Then into the mind of the mentally deranged Zorome, Professor Jameson saw the horrible thought, the terrible command from the other dimension, come slowly stealing.

"Death to 21MM392!"

The professor faltered and backed away from the machine man who stood dazedly before him. The open door clanged dismally while the screaming wind still shrieked gloomily. The depressing sunlight of the blue

sun spread a melancholy, azure glow into the interplanetary craft.

With the quickness of a cat, 149Z-24 grasped a heavy metal bar behind him and rushed down upon the unprotected 21MM392 to crush his metal skull.

Professor Jameson, the instincts of self-preservation still dominant in his clear thinking mind, slumped forward as the crazed machine man struck. Two quick actions occurred simultaneously. As the heavy, metal bar missed the ducked head of Professor Jameson and placed a great dent upon his metal cubed body, the latter's tentacles closed quickly about 149Z-24's jointed legs and lifted him off the floor.

Staggering to the opening of the space ship, the professor hurled the metal body of 149Z-24 down upon the great planet which was spinning dizzily past below them.

The Last of the Zoromes

PROFESSOR Jameson made his way to the fore of the craft after having closed the door, and now he gazed out to see what lay ahead of him. The space flyer raced along, apparently on a horizontal position with the planet, its broken, uncontrolled propulsion mechanism running wild, but the professor knew that the distance between the space ship and the planet was gradually closing.

He was the last of the Zoromes, spared but for a short interval following the fate of his machine comrades. He would soon crash to his death with the space ship.

Contrary to the assertion of 305N-56 that the space flyer would double and redouble its speed until the friction of the air burned it up, the interplanetary craft from Zor did nothing of the kind. Though the friction with the atmosphere had produced an unusual warmth within the interior, the speed of the ship had failed to rise above a certain maximum. This was due to the solidity of the air which did not allow the tremendous velocities attained in free space.

Far ahead of him, Professor Jameson perceived a dull, pinkish glow lighting up the distant sky line in the direction the space ship was headed. The blue sun was sinking below the horizon, and the inky blackness of night hovered near as the unpiloted space flyer catapulted onward at such a remarkable speed for terrestrial travel.

The far-off pink glow the professor had discerned upon the horizon in the azure dusk had now mounted to alarming proportions, spreading a red, lurid flare far up into the sky. It was a long way off. Rapidly the space craft ate up the distance, and in the complete darkness which had now fallen, the professor saw the red, angry flare to be a tremendous holocaust leaping skyward from the bowels of the planet.

Great, scarlet tongues of flame licked upward angrily for many miles from the terrible inferno the uncontrolled space ship now recklessly approached. Huge fragments of rock many times the size of the space craft, along with red spurts of fountainous lava, vomited skyward. It was such a volcano as human imagination could never conceive in its actual picture. The vastness of the awesome display and the boundless magnitude of the spectacle lent the impression that a ravaging eternal fire was about to consume the entire world. It was a vision far beyond the conception of Dante, beside which his inferno would have appeared belittled by the contrast.

Into this hell of upcast molten rock and seething flame the space ship of Zor careened in its mad flight. It contained the solitary machine man, 21MM392, known previously to men of the earth as Professor Jameson. As the space ship raced into the first ring of smoke and flame, the professor realized that here was a dramatic climax to his equally dramatic career. He would be burned into gas, and the residue of his body and of the space craft would be converted into lava. The crash of the ship of space would occur in a swirling lake of living fire, or else a hurtling boulder cast out by the tremendous fury of the perpetual flame and seething activity would crush the space ship in flight.

Professor Jameson, the last Zorome of the ill-fated expedition, awaited his end with a patience born of martyrdom and philosophy. He had been a martyr to science in his earthly life, and among the Zoromes he had become a confirmed philosopher. Death offered no terror to him. It was life's greatest adventure, if, however, a bit mysterious and menacing. But what could constitute adventure without mystery or menace of some description?

Through the Inferno

THE hell of the raging conflagration enveloped him, and produced a roaring as if all the elements of the Universe unleashed at once. Red, raging flame licked hungrily about the speeding space ship, and swirling smoke spread its murky haze around the ill destined craft. Glowing rock debris and spattering, liquid fire showered the metal sides, while by a miracle the huge boulders missed the ship in its mad flight through the raging hell.

A dizziness and weakness assailed the mind of Professor Jameson within its metal skull. The terrific heat, which would have shrivelled the body of a flesh and blood creature, killing it instantly, was now beginning to affect the metal machine man's brain a bit. The space ship was intensely heated, parts of its metal shell glowing red. The skull of Professor Jameson was growing hot, and with a sudden lurch of dizzy senses, his consciousness departed and he knew no more. The professor's last sensation was that of being whirled rapidly over and over as the space flyer glanced from the side of a huge, smoldering, upflung rock and gyrated dizzily down into the lake of fire.

Why was it that Professor Jameson had eluded the sinister fate of his fellow Zoromes to succumb to the living fires? Why had his mind escaped the irresistible lure of the phantoms from the other world? The sagacity, wisdom and power of intellect of the Zoromes had outweighed his own in most respects—yet they had fallen before the hypnotic spell to which he had remained immune.

The truth of the enigma lay in the fact that Professor Jameson's mind, as 25X-987 had once remarked, was a great deal different from the gray matter of the machine men of Zor. In justice to the Zoromes, those wanderers of Cosmic space who had stored up the knowledge of millions of years, let it be said that the hypnotic influence of the winged phantoms depended not upon the power of intellect. Their weird power of mind across the barrier of an invisible dimension exerted its influence through the susceptibility of the mind's structure.

Professor Jameson's brain structure was radically dif-

ferent from that of the Zoromes and the Tripeds, and as there was no harmonizing of his mind matter with that of the winged phantoms on the other plane of existence, the professor had been immune to the fatal lure.

The professor attempted to compose his thoughts. His mind rolled sluggishly in a riot of confused mental pictures. He appeared to be drifting in an immense, unending blackness of eternal mystery. He groped—he sought about him, and found he had nothing to reach with, nothing with which to apply the sensation of touch. He scarcely knew whether or not he existed, and imagined himself merely a shadow among shadows, a bare hint of existence. Where was he—what had become of him? He wondered vaguely, but there was no manner in which to satiate hisquisitiveness. All was mystery.

For a long time he felt the presence of objects near him he could not touch, and then out of the depth of blackness before him there shone a dull, gray light. It grew slowly to gradually fill up his vision. The light whirled like a mammoth pinwheel and then slowed up, resolving itself into three spots of vari-colored light surrounded by finer points of scattered brilliance. His blurred vision was clear once more, and he seemed a bit more conscious of himself. Something long and circular lay before him. Involuntarily he moved a bit, and the thing moved. It was a tentacle—his tentacle. Then he was not removed from the body—not dead even. But where was he?

His senses and thinking power now emerged from its state of temporary incapacity to function properly. He looked upon the other side of him, lifting the eyelid shutters of the eyes on that side of his head.

He saw the interior of the space ship. Once more he looked out through the transparent side of the interplanetary craft at the three comparatively large splotches of light he had previously seen so indistinctly. They were grouped close together.

Two of them were bright disc-like objects which shone against a velvety blackness while the third object appeared as a semi-disk which glowed less brilliantly. Professor Jameson gave a gasp of incredulity. He was once more out in space far from the planet of the double sun which was represented by the half circle of light. The two round objects were the double sun, one orb blue and the other orange.

How had he escaped the volcano's fiery depth into which the uncontrolled space ship had madly rushed in its wild, unrestrained flight? The last thing he had remembered before his heat disordered brain had given way to unconsciousness, was the terrific, glancing impact with the red hot boulder cast from the blazing inferno's chaotic activity. A great indentation upon the side of the interstellar traveler mutely testified to the collision with the volcanic rock. And then, the professor remembered that through the window of the spinning space ship he had obtained a few fleeting glimpses of the white hot lake of fire rushing up at him with incredible velocity.

Eternal Loneliness

WHAT had happened? Had this final sight been the delusion of an overheated brain? Evidently the glancing blow dealt by the huge chunk of volcanic debris had driven the interplanetary ship back into space where its uncontrolled speed had rapidly taken it

from the vicinity of the planet. A plausible solution suddenly occurred to the professor. Possibly the lake of fire he had seen approaching, following the collision with the hurtling boulder, was but the reflected mirage of the lake's fiery surface upon the bank of lurid smoke clouds hovering far above the blazing holocaust. Suffice it to say, however, that he had been miraculously delivered from the hellish fate to which he had considered himself inevitably consigned.

He arose, and made his way to the control room where he glanced at the partially wrecked machinery. He found the dials and consulted them, finding that the space ship pursued a course around the double suns. The space ship had become a satellite of the blue and orange suns even as the four planets which encircled the suns. Professor Jameson found that the orbit of the disabled space craft was midway between the first and second planets. The space ship had long since ceased its own mad speed, making the professor wonder how long he had remained unconscious. For an earthly day? Had it been a month, a year, or—or an age? It made little difference, for here in space, time was an unknown quantity, and when one is devoid of senses, time ceases to exist. The professor had no knowledge of how long he had remained unconscious and could calculate no approximate guess.

The space ship's machinery was irreparably wrecked, and Professor Jameson was doomed to a solitary, lonely life of perpetual existence in his annual course around the double suns, enabled to watch at all times the various phases of the planet on which had occurred the death of his fellow comrades. He was the last of the Zoromes, and the only escape from the monotony of the existence which lay before him was by suicide. The professor contemptuously shunned this expedient of release.

For over forty million years he had lain preserved in death within his rocket container, to be found and brought

back to life by the Zoromes. And now he was consigned by the irony of fate to a similar existence, except that, this time, he was not bereft of life and the sensation of living. His was to be a perpetual life of loneliness, in trivial comparison with the life of a flesh and blood creature of any planet.

The stars and passing comets would be his only companions, silent ones of the cosmic Universe, and perhaps occasionally a passing meteor would flit its temporary greeting before continuing its aimless pilgrimage on into the realms of eternal mystery.

Would a space ship from Zor ever chance that way some time in the eonistic future to release him from his cosmic prison? There were many of the machine men expeditions scattered throughout space, but his disabled space craft represented the proverbial needle of the haystack, and the haystack but a solitary haystack among billions. It was a forlorn hope, with chances of a trillion to one. Better were the chances of a space expedition from one of the four planets of the double sun finding the wrecked space traveler.

Perhaps in the ensuing ages measured only in geological history, the simple forms of life upon these planets would rise through various progressive scales of evolution to an inevitable position of scientific prominence, where the art of space flying would be conquered. Then would the professor's woes of loneliness be abruptly ended, plunging him into a series of new and startling adventures.

Such a hope must lie far within the interminable future, and the fruits of such a hope were to be born only of an undying patience and a wonderful philosophy. Moodily, and in deep, meditative ruminations, Professor Jameson, lost in the twisting labyrinth of his own thoughts, stared across the depths of vacuum to where there spun lazily in space the planet of the double sun.

THE END

The Sages of Eros

By John Francis Kalland

(Continued from page 1003)

toid's orbit had been noted some time previously and had caused much mystification. He estimated its present orbit as approximately thirteen million miles beyond that of Earth, thus agreeing with the story. He also stated that the transparent enclosure mentioned, offered a much better explanation of the light variations that had long been noted by astronomers than the old one of an uneven

surface. Finally he offered the unqualified opinion that the story was extremely probable.

Opinion is now equally divided. The story is given here to the public exactly as it was told to the writer by Jack Prescott, with the hope that confidence will be restored in the truthfulness of one of the finest men the world has ever known.

THE END

The Pent House

By David H. Keller, M.D.

(Continued from page 991)

they were living in the pent house. In fact the young parents were astonished when the Doctor told them that the door would open on the following day.

"And I will go down into the world by myself," he explained, "I will go down first to see what has happened and if it is safe for you to come and bring the baby. I will close the door but not lock it. If I do not return in a reasonable time I think that you had better stay up here another year."

They kissed the old man goodbye and urged him to take care of himself. Susanne asked him to bring her a new doll and pink dresses with yellow dots on them. It was a rather silent and sober family, who saw the old man go down the steps and close the door after him.

Two hours later he came back through the doorway and closed the door behind him. He looked very quiet and older than when he left. Claude and Doris felt that he had news, very bad news to tell.

"I went down and found out what had happened. In a way I was right. There were a great many more cases of cancer after we came up here. That part of my prophecy turned out to be correct. But a month after we came here Stambolle of Vienna perfected a cancer serum, a very simple formula, but it was extremely effective. Practically all the civilized world was given the treatment. It must have been a perfect defence as there has not been a case of cancer-death in the last three years."

"Then the world is just as it was five years ago?" asked Claude breathlessly.

"No. It's worse. If anything, the city is noisier and dirtier. The people have more money and more leisure.

They have a six hour working day, but they do not know how to spend their spare time. They are trying to amuse themselves. The television houses are packed, the sky is full of commercial airplanes, while the poor people are packing the roads with cheap machines. All the vices are increasing and all the virtues are going out of fashion. There are ten rackets for every one we had five years ago. The gangsters are killing themselves. The rich people are drinking and dancing themselves to death while the poor people are dying from hunger. No one seems to be happy. The death rate is twice as large as it was ten years ago, and the lap dog has replaced the baby. I saw all I wanted to. It seemed to me that the world has escaped the cancer death so it could die from neurosis."

Claude looked at Doris and Doris looked at Claude and the two looked at Susanne, who was playing with the new dollie the scientist had brought her.

"I am very sorry," finished the Doctor; "very sorry. I have literally robbed you youngsters of five years of your life. But you have the money you have earned and you won't have any trouble spending it, at least not in New York. You ought to have a fine start financially, and if you need more, I will be glad to give it to you. You really have been just like my own children, and I am just sorry it all turned out like it did."

"I think," replied Doris, "and I am sure that Claude will agree with me. . . . I think that it worked out all right. What I want you to do is—and I hope you will do it without any argument—and it's just this. Get more supplies of every kind and then—just lock the door for another five years of Heaven in a pent house."

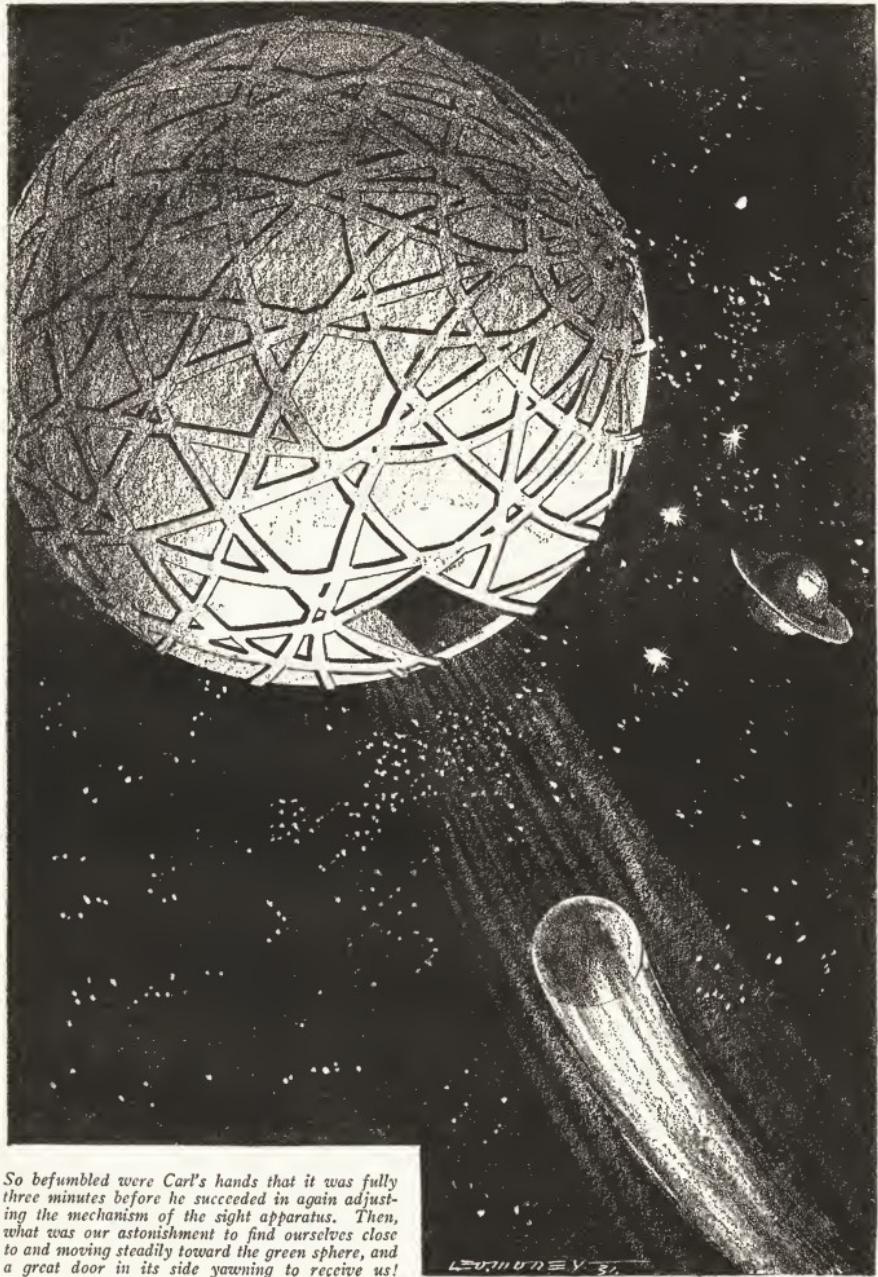
THE END

What Do You Know?

READERS OF AMAZING STORIES have frequently commented upon the fact that there is more actual knowledge to be gained through reading its pages than from many a text-book. Moreover, most of the stories are written in a popular vein, making it possible for anyone to grasp important facts.

The questions which we give below are all answered on the pages as listed at the end of the questions. Please see if you can answer the questions without looking for the answer, and see how well you check up on your general knowledge of science.

1. How is the Brownian Movement observed by the Microscope? (See page 967.)
2. What is the incessant motion of the particles attributed to? (See page 967.)
3. Are the particles in the Brownian Movement large enough to be seen? (See page 967.)
4. How can the size of the molecules be indicated in a simple way? (See page 967.)
5. Suggest an interesting experiment with lycopodium. (See page 967.)
6. What is the Piramha? (See page 970.)
7. How could you realize that a vehicle was accelerating if there was nothing to see? (See page 977.)
8. At 120 miles per second, how long would it take to reach Mars when 35,000,000 miles from the earth? (See page 994.)
9. Would the stars look larger or smaller if seen outside of any atmosphere? (See page 995.)
10. What is Eros classified as? (See page 997.)
11. How are the protons of the elements charged with electricity? (See page 1000.)
12. What is terrestrial gravity? (See page 1038.)
13. How many satellites has Jupiter? (See page 1039.)



So befuddled were Carl's hands that it was fully three minutes before he succeeded in again adjusting the mechanism of the sight apparatus. Then, what was our astonishment to find ourselves close to and moving steadily toward the green sphere, and a great door in its side yawning to receive us!

LEONARD W. S.

The Heritage of the Earth

By Harley S. Aldinger

Author of "The Way of a Dinosaur"

MY despondency, as I strode along a New York street at eleven o'clock of that memorial morning of crisp October, was like that of a man sentenced to be hanged. A short half-hour before, I had left the offices of the great specialist, Doctor William Naston, with the knowledge that I was a doomed man. His last test, that morning, had established, without a doubt, the fact that I was a victim of an incurable heart disease. Its specter had hung over me for months; now I was solemnly assured that death might claim me for its own at any moment. A more down-hearted man never lived, I am sure. To be sure, I had no dear ones to leave behind, but that did not assuage my feelings a great deal, for I felt that I had not yet seen enough of life to contemplate dying. Since my graduation from college six years before, I had worked steadily to get a good start. I had accumulated a very respectable sum of money, and, in four months, I was to take an eight months' vacation in Europe, to which I had looked forward for a long time. But in four months, it was very probable, I would be dead! That was the thought, black as night, that rose to blot out whatever more cheerful thoughts I might try to employ in order to forget for a little while.

In such a state of mind, then, I attempted to cross the street. I looked neither to right nor to left, so it was small wonder when a speeding taxicab nearly hastened the arrival of my promised death. The driver had no time to swerve; he applied his brakes until they shrieked, and came to a stop within inches of me.

The man jumped out and vented upon my head all the venom usually attributed to drivers of taxicabs. I have heard several express their forcible thoughts; so I can say with some authority that this individual was practiced and adept above the average. The speech was delivered out of the corner of his mouth, with a ludicrous impassiveness of expression. The tirade was just

getting into full swing, when I apologized and started to depart from the sulphuric area. I had hardly taken a step, however, when a familiar voice hailed me from behind. I whirled; joyful, in my present state of mind, to see anyone I knew. It was Carl Price, my oldest and dearest chum of college days, whom I had not seen for four years, who leaped from the nearly fatal cab, snatched my hand, and clapped me on the back hilariously.

"How are you, Rog, old son?" he greeted me. "Where've you been for the last half a century? I certainly am delighted to see you again."

I was no less overjoyed to see him. He was a somewhat different Carl from the youth of six years before.

A little paler and less robust—undoubtedly the result of indoor work—a little older, with a few youthful lines in his still good-looking face. But the main difference was that he had acquired a more intellectual look; a scholar had replaced the athlete of former days. On the whole, however, his physical appearance had changed for the better, and never was any countenance more pleasing to me.

"Jump in, Rog," he said. "We've countless things to tell each other."

"I will, if you can placate your driver," I answered; "but I'm afraid that's going to be a bit difficult to accomplish. He looks as if he doesn't hate tuberculosis worse."

"Oh, you've got him all wrong. He's really a fine fellow. Implied so to me himself. He just held that impromptu monologue to exercise his vocabulary and carry on a tradition. You attended Yale; you ought to know what carrying on a tradition means."

Together we approached the cab and the cab-driver. Miraculously, what Carl had said seemed to be true. As a pedestrian, words could not describe me; as a customer, I was really quite a good sort.

Carl and I were immediately engrossed in a discussion of old times and our doings since graduation. He had always had a turn for science of all kinds during his

Illustrated by MOREY

PERHAPS ages past, when the disclosure of an unprecedented scientific discovery would have earned the discoverer the reward of being burned at the stake, someone might have hit on the right formula for controlling gravity, or perhaps otherwise solved the problem of interplanetary travel, but to save his neck very carefully eliminated any possibility of its discovery. Where, or how, our author conceived the idea he expounds so graphically in this narration we cannot tell, of course, but the story seems to us altogether plausible and decidedly interesting.

college days; so I was not surprised when he told me he had taken it up afterward as his life work. Not as a livelihood, however, for his father had accumulated a vast fortune in the unscientific pursuit of manufacturing shoes, but rather as a pleasing and engrossing subject, never to be explored to its farthest depth. I gathered that he had made excellent progress. He had revealed some of his findings to the world, but the greater part were known only to himself. When he told me that, he gave a vague impression that some of the latter were really gigantic in their advancement. This interested me greatly, for, while I cared little for ordinary science, the more glamorous discoveries never failed to enthrall me.

"Well, Rog," was his amiable remark during a little lull in conversation, "you certainly are looking fine and healthy."

That suddenly brought back the black, threatening shadow of death, forgotten for a little time at meeting Carl. It seemed to crush me in its reborn vigor. I gasped aloud.

Carl grasped my shoulder. "What in the world is the matter?" he asked anxiously.

I told him. My voice did not tremble, but it was slow and flat, befitting the voice of a doomed man.

Carl was silent and still for minutes, with his hand still on my shoulder. "Rog," he said huskily, "this is terrible. I can't describe how I feel. I've kept pretty much to myself, and I've almost no friends but you, and none I care for nearly so much. Two years ago, I thought I could invent a mechanical body for humans, but that project—ah—er—" He was suddenly self-conscious and biting his lip at my questioning glance. It was evident that his long years of close-mouthed silence had created too great an effect to be overthrown suddenly. "Er—of course," he went on, "you won't understand that. Put me down as a scientific nut, if you like. But really, Rog, there must be something that can be done. You can't just die like that on account of a silly heart. I'm wealthy; perhaps money could accomplish it. Have you consulted the very best specialists?"

"William J. Naston, himself," I assured him, "pronounced my case, after exhaustive tests, incurable. And many others have, too."

"Mmm. Well, there's no doubt about Naston's ability. Perhaps, though, Doctor Gussmann, the German wizard, could do something."

"No," I objected. "If Doctor Naston has done his best, no one else can do better."

"Well, I'll admit I have the highest respect for him. I quite agree with you there. What's to be done? Every resource of mine is at your service, of course."

"Good of you, but there's nothing that can be done," I answered. "I've spent too many sleepless nights over it not to believe it inevitable. What I really regret, though, is that I've lived so little. I haven't seen anything yet. I'd like some great, glorious adventure that would transcend all the usual ones, that would make up for all I'll miss."

There was a bright light dawning in my friend's eye. His whole face began to glow, and he seemed very much excited. He clutched my shoulder harder than before. "There *is* such an adventure, Roger!" he exclaimed. "An adventure that I'm going on—that your desire and the briefness of your remaining life makes fitting that you should accompany me on—an adventure, dear boy,

that is glorious enough, thrilling enough, and breathtaking enough in its very contemplation, to satisfy even you."

Carl's expression approached rapture. He stared out the window unseeing.

"Is it dangerous?" I asked—in anticipation rather than fear.

"We-el, I guess there's no more than an even chance of one's coming out alive. But it's worth it. If you'll go with me—and nothing could please me more—you'll see things and do things no other mortal has seen and done since the world began."

"Whatever it may be, old friend, I'm with you to the last!"

"That's the spirit," he exclaimed. "I knew you would. You won't regret it, I assure you! Will you come with me at once, then, to my place at Henderdon?"

I assented readily. Carl had always been an undemonstrative chap, and I knew the project could be of no little importance to excite him so. We went to my hotel, where I packed my things in fifteen minutes. After that, we had very little time to get the next fast train for Henderdon; so we had to tumble into the cab in a hurry and race for it. We made it by minutes.

We had an excellent dinner on board. Then Carl drew me out on the observation platform, which was empty. We sat down, and I declared myself ready to hear why I was bound west thus unexpectedly.

"Rog," began my friend, "before you told me of your misfortune we discussed quite a number of things, and I told you what I've been doing since we last saw each other, but I'll admit that I was reticent. Of course, I shouldn't have been so with as old a friend as you, but it was only natural, considering the magnitude of the secrets I possess. For years I've delved into the little-known alcoves of scientific knowledge. I've been well repaid, for I have uncovered a number of amazing things absolutely unknown to man. But the greatest of all, and most incredible, even to me, for I hardly understand the underlying principles myself, is the fact that I have found a way, proved a hundred times, to traverse interplanetary space!"

THE day for incredulity is passed. Too many times have the ignorant masses derided the scientifically great, only to be forced to believe later, to their own humiliation. The wonders of the modern world are too many and too great to disbelieve anything short of an artificial god. Therefore, I did not immediately rise and shout for assistance to cope with a maniac, I merely settled down in my seat a little more, thrust my hands into my pockets, and prepared to hear what promised to be, if not a practical project, at least a remarkable narrative.

My companion had watched me a little anxiously as he had uttered his astounding words, but upon seeing my attitude he emitted a relieved sigh. "Glad you're taking it like that," he said warmly. "I knew you would."

"Well, to get on. I'm afraid you won't get much of a story, because, as the discoverer of this, I know astonishingly little about it. Briefly, it's this: You know what terrestrial gravity is. It's a natural tendency to draw all objects toward the center of the earth. Its force is terrific. A little over two years ago I found a strange energy or force which is always found together

with some other kind of energy. By isolating this energy and charging a block of purest copper with it, I discovered that the metal thus treated not only had no weight, showing that the attraction of gravity was thrown off, but actually was lighter than air. I found that this was due to an *anti-gravitational* force, which was so powerful that as each piece of copper was energized, it rose away from the earth with terrific speed, breaking through any coverings as if they were paper, and was lost from view in a fraction of a second. When I discharged this energy into another metal, this effect did not occur; the metal lost no weight whatsoever. Therefore, I was able to control the weight and motion of the pure copper by discharging into it or exhausting from it the energy of my discovery."

He stopped and gazed at me with a queer expression, as if he still believed I might think him a madman. I nodded and encouraged him to continue, but made no comment. Things quite as astounding are done continually in the scientific world. They do not create a furor, simply because they are not sufficiently appealing to the public imagination.

"Well," resumed Carl, "the rest was comparatively simple. I had an interplanetary flier constructed on that principle. A great steel sphere nearly twenty feet in diameter, made of two thick steel shells with a thinner one between of copper of the necessary purity. The flier was fitted out inside for human travel, and supplied and provisioned much as an airplane in which a flight to the polar regions is contemplated would be. Of course, many unusual devices were necessary, most of them of my own invention or perfection, such as an oxygen machine. Even if you decide not to go with me, you'll be interested in looking the flier over."

"If I decide not to go!" I exclaimed. "My dear man, you couldn't keep me away from your sky-runabout now. Are we going to go somewhere in it, or just take a ride?"

He grinned delightedly and shook my hand again. "I completely forgot to tell you about our destination, Rog. We certainly are going somewhere."

"I've perfected a telescope that's a departure from the usual thing. It is many times as powerful as any other, so I was able to explore our universe very completely and minutely. Of course, the first thing I looked for was living animals on the planets. On Mars I found great cities and other indications of a mighty civilization. But in ruins—the civilization was past, and the Martians were a dead people. Dust, perhaps, before man trod the earth. In all space I could find vestiges of life on only one bit of matter. You remember we used to study Jupiter, the giant planet, in college astronomy. It is in a semi-liquid state, and in a condition of great heat. It is, in fact, like a lesser sun to its nine satellites circling about it, which receive from it a vast amount of direct radiant heat, and light reflected from the sun. The temperature on their surfaces isn't a great deal different from that of the earth. It was on one of these satellites of Jupiter, then, that I discovered life. Horrible creatures, Rog, with bodies not unlike those of men, but more like the crooked physiques of the gnomes of ancient belief, and heads resembling nothing so much as the magnified head of a common house fly. I'll admit, that I'm not so anxious to come into contact with them, but if they are the sole existing life of the universe outside that of the earth, the chance isn't to be missed."

At this point three men came out on the observation platform. We hurriedly changed the subject to that of the political situation. We did not again discuss the strange project for the rest of the trip, but it was ever uppermost in our minds. All thoughts of my earthly death were obliterated. A few weeks on such a journey were, to my mind, worth a lifetime of mediocre existence. Consequently, I was in a pleasant and anticipatory state of mind when, the next day, Carl and I alighted at the tiny station at Henderton and hired the dilapidated Ford that was the little town's only taxi-cab, to take us to the Price estate, which was about ten miles from the village.

When, after a bumpy ride, we reached Carl's home, the place looked but little different from the way it had appeared the last time I had seen it. It was a scheduled, mammoth, old mansion of red brick, set far back among a score of great oaks that almost hid it from view. There was one difference, however, for now there was a high, black iron fence topped with barbed wire surrounding the premises. This, Carl designed to keep out trespassers. Inside, I found that another building had been added. It was Carl's workshop, laboratory, and hangar for his flier. It was as large as the house. He informed me that he was accustomed to spend almost all his waking hours there. He had no living relatives, and never any visitors, so there were, in addition to himself, only very few servants and his workmen on the grounds.

My friend and host conducted me almost immediately to the laboratory building. The place was littered with bewilderingly vast number of scientific apparatus, chemicals, and strange machines. I was led unerringly through it all to a great hall in the center and top of the structure. We did not come into this on the floor, but on a huge shelf half way up the wall and running the length of the apartment. At the edge of this floated, immobile, the heavy steel flier, like a boat at a wharf! It was an immense sphere; its smooth, highly polished, steel hide was unbroken by any projections or rivets. No doors or windows were to be seen. There were no windows, I learned, and the rounded, massive door had been carefully fashioned to fit without a crevice. The *Space Wanderer* resembled nothing so much to me as a gigantic specimen of the steel balls used in automobile ball-bearings.

Carl grinned boyishly at my expression, but said nothing. He went to an instrument board against the wall and touched something. Instantly the invisible door of the flier swung open. It was no more than four feet square; perhaps not even that. My friend went on board, bidding me to follow. I did so, and experienced an eerie qualm as I stepped from the shelf to the floating craft and observed the blankness between and the floor far below.

In spite of the absence of motors, there was very little space inside, most of it being packed with foodstuffs, scientific apparatus, and every article that could conceivably be of use upon such an expedition. Even the space between the walls and the outer shells was packed. Carl told me that there were room and supplies for two, because one of his most trusted workmen had intended to go, but had backed out only a week before the time set for the departure. After that Carl had resolved to go alone.

Inside the flier, the eye was first attracted to the dull black instrument board. In the middle of it, directly

before the eyes of the operator, was a shiny plate, about a foot and a half square, and of an odd looking metal. I could not guess its purpose. On either side and below it were a number of dials, small electric bulbs of various colors, instruments, and a row of switches and little brass levers. In front of the board was a comfortable, upholstered chair, which was well adapted both for long hours of sitting and for sleeping. Beside it was another, an exact duplicate. Both were fastened to the floor, (in fact, everything on the craft was fastened in its place) and both had straps attached to the arms and back, obviously designed to secure the occupant in his place. In a corner stood the important machine that furnished air, heat, and water. At the top of this was the register that sent out the air, heated to the desired degree, and at the bottom another that drew off the cooled air. At the side was a single faucet, with a tiny porcelain wash basin below it and a mirror above. Two narrow, strap-equipped bunks, one above the other, and two lockers for personal effects completed the few furnishings. No palatial space liner, to be sure.

After a few minutes, Carl said: "We'll go in to dinner now, Rog, if you're ready. There's nothing here that you won't be tired of seeing after a day or two in the flight."

"When are we going to go?"

"At sundown tomorrow, if that's all right with you."

"The sooner the better," I assented.

NEXT day, however, an unexpected flaw was found in the operation of the atmosphere machine, so it was not until nearly midnight of the next night that I again set foot in the *Space Wanderer*. There was no one to see us off, but three workmen who had opened a great trapdoor in the roof, and stood awaiting any last orders. "Honest fellows," Carl had remarked concerning them. "I've had my will revised to bequeath them and the servants half my entire fortune. They deserve it."

Carl seated himself in the operator's chair. I took the other. He turned off the lights and switched on a smaller one over the instrument board. As he adjusted half a dozen dials, several of the small colored lights flashed on. Then he pulled one of the little levers; a yellow light blinked out, and the ship began, very slowly, to rise. It swung and side-slipped alarmingly; he appeared to have difficulty in keeping it right side up. The glare from the hangar that had been flooding through the still open door was seen no more as we rose out of the building. It all seemed very queer to me. I do not know just what I had expected, but it was hardly that the thing would rise slowly and groggily like this, like an overloaded balloon.

Carl stood up and walked to the open door, taking care not to slide out on the smooth floor, for the ship was inclined that way slightly. I did likewise and stood beside him, looking down through the opening.

"Breathe deep of old Mother Earth's atmosphere, Rog," my friend advised. "We may not again, and the stuff in the flier isn't just like it. Are you sure you're not forgetting anything you want to do before you go?"

I shook my head. "No, it's all attended to."

"All set, then? Let's go. I'm afraid you'll fall if you teeter on the edge there any longer. Strap yourself in that chair, because when we go, we'll go fast. I don't know just what will happen, but I imagine that if we

start turning, we'll spin like a top. At any rate, we'll be on our way."

"You see," he continued, indicating his controls, "I've shut off all the gravitational and anti-gravitational influences of the other bodies of the universe, and the gravitational and anti-gravitational forces of the earth are nicely adjusted to keep us in the air here. When I pull these two levers, we will be propelled into space by anti-gravitational power, and at a terrific speed."

"All set?" he reiterated, touching the switch that closed the door.

"All set," and I clutched my chair.

He jerked the little levers. I lost consciousness instantly. I had fragments of dreams, however, and they were not pleasant. It was nearly half an hour later, by my strap watch, when I again became conscious.

"Are we going?" I asked Carl, who was leaning back and staring happily at the ceiling.

"Oh," he said severely, "are you awake? What's the idea of going to sleep at a critical time like that?"

And then, dropping pretense: "I was out for a while myself. When I came to, we were revolving, but we're traveling on an even keel now. Nice and smooth, too. You wouldn't know we were moving. You can get up and walk about now."

He stood up and unstrapped me. My tired fingers were still clutching the arm of the chair.

"By the way, Rog old top, you don't know the use of this screen yet, do you?" he asked, indicating the metal plate on the instrument board.

"Oh, is it screen? No, but I've wondered."

"Well, it's to compensate for the lack of windows. It will enable us to look out through space. Watch it."

He pulled a little lever and adjusted three dials. The screen became very bright, and I was gazing upon the great shining surface of the moon, very close now.

"That's very convenient," I said admiringly.

"I don't know how we could make this trip without it. It would be impossible to have windows in such a fier. You see, the ray that is used in this machine is able to penetrate the copper and steel shells of the *Wanderer*, and a view is given just as if we were sitting on the outside with a fairly good pair of field glasses. By the way, we've passed the moon. That's not the side you're familiar with, but the other side."

We stayed awake for a couple of hours longer to see that everything was running smoothly, and then went to bed, if that term can be applied to climbing into a bunk. To avoid collision with a wandering meteor, there was an instrument which would ring a bell if we approached within fifty thousand miles of another body.

The days were not so tedious as they might have been, in that confined space. We were well equipped with all sorts of reading matter and games, and the metal screen was a never failing source of interest. Its vision could be swung to any part of the surrounding universe; that is, it was not confined merely to that which was directly before it.

Then, one morning, when we were four days out, the alarm bell sounded. Ever in fear of colliding with some nomad of space, Carl went to the instrument board and began playing the vision of the screen about, as if it were a flashlight. He could find nothing within the distance that would cause the ringing of the bell.

"I wish," he reiterated for the hundredth time since

we had started, "that this thing had telescopic properties of greater magnification. The other body is too small to be picked up at this distance, and probably large enough to break us like an eggshell if—ah, here it is!"

I approached the screen to see a rapidly growing dark speck. We were headed straight for it. Carl played the controls until we had veered sufficiently to avoid striking it and at the same time to view it at close quarters. He also slowed the flier down to a fraction of its former velocity.

My companion gripped my arm. "That's not a meteorite," he said tensely.

But even as he spoke, I noticed that the body was peculiar, for it appeared to be of some metallic substance. As we approached closer, Carl changed our speed to conform with that of the other. Our first vague impression was corroborated; the object was a vast sphere of perhaps a thousand feet in diameter and of a dark, greenish metal. It was encircled by criss-crossing and massive bands of the same material. There were no other distinguishing features. It was evident that it could be nothing but the organized work of highly intelligent beings, although we ourselves had accomplished space travel. We gazed at it with amazement.

The other machine moved out of our view after a minute, and so befuddled were Carl's hands that it was fully three minutes before he succeeded in again adjusting the mechanism of the sight apparatus. Then, what was our astonishment to find ourselves close to and moving steadily toward the green sphere, and a great door in its side yawning to receive us!

"Are you going to allow the *Wanderer* to be drawn into that?" I asked Carl. "You don't know what sort of creatures are in there. They may be entirely different from us, you know. I've absolutely no desire to serve as a rare natural science specimen for a race of, for instance, intelligent snakes!"

"Of course, there are dangers of something of that sort," he nodded, "but it may be entirely different. This is too great an opportunity to miss, at any rate. That is, unless you really insist on backing out."

My heart was due to cease functioning shortly, anyway, so I offered no further remonstrances.

We passed through the great portal into the darkness beyond. We saw the door close behind us; then the blackness was utter. For perhaps a quarter of an hour we remained thus, awaiting the will of those who were no less than our captors, although we were willing captives. Then an indirect light dawned upon the screen. Carl immediately swung the vision about to the source, and we saw another gigantic door opening inward into the interior of the metal monster. Again we were drawn onward by a force not our own, and our flier moved into a second great chamber, this one brilliantly lighted. Nothing but the smooth walls were to be seen; not even a door. We were brought down until a slight jar told us that the ship rested on the floor. Carl, elated at this new adventure, immediately pulled the lever that operated the door. This was, as he told me afterward, an exceedingly rash thing to do, as there may have been no air without. But fortune favored us, and I, at his heels, drew in deep breaths of the welcome and refreshing air, with the scent of growing things in it, that rushed in to greet us.

Then there entered, by a door that swung noiselessly out of the wall, one of the inhabitants of this miniature

planet, a welcome sight indeed, for he was no intelligent mosquito or boa-constrictor, but a man, an old fellow with flowing white beard and hair surrounding his highly intelligent and yet cheery face. He seemed to be about sixty or sixty-five years old, but a peculiar effervescence of youth which emanated from him belied his seeming age. He was dressed in ancient style, in a loose, togalike robe and sandals. It was ludicrous, to say the least, to see, under the arm of this patriarchal figure, an entirely modern stepladder! With a smile he set this up below our door.

"Will you," he inquired politely, in a pleasant voice, "be pleased to descend after your long journey?"

I nearly fell to the floor beneath without the aid of the stepladder. English! That was the first time on that adventure that I suspected myself of being in a dream.

Carl descended first. The ancient proffered his hand and the two shook hands quite in the current manner. "I'm pleased to meet you," my friend remarked weakly. He was in as befuddled a state of mind as I.

"I am Marcus Titillius. I have followed your experiments of late with the greatest interest, my dear Mr. Price. I was not certain, however, whether I should have the pleasure of a visit. You are very welcome."

"I extend my welcome to you also, Mr. Harding," he greeted me. "It was indeed a surprise when I found that you, instead of Mr. Price's assistant, would accompany him.

"This knowledge of mine startles you, of course," he addressed both of us, "but it will all be explained to you in due course. And now, come with me."

We walked beside him toward the door from which he had entered. He spoke again: "I am sorry that I have no servants whose services I might offer, but besides my daughter and myself there is no one in all this great house of mine, which I have named *Martia* in honor of the planet Mars. I have named it thus rather than *The Martian*, for is it not indeed a world rather than a machine or craft? But when I say that, I excite you to the questions which undoubtedly all strive to have utterance at one time. Before I attempt to explain anything, you must be rested and refreshed. We are now going to the living quarters."

We passed through the door into a small room, empty except for a waiting elevator, which was very modern in appearance. Stepping into this we moved upward with disconcerting speed for some moments, when we stopped with equally disconcerting suddenness. We walked into a room which was indeed pleasing to my eye, for in direct contrast to the mechanicality of the preceding four days and the plainness of my bachelor rooms on Earth, it fairly radiated a feminine touch and a comfort that made it eminently a *home*.

Almost immediately the presiding genius of the room entered. The girl inspired us with a sentiment approaching reverence. Her father seemed to have come to us from the pages of history, but she gave this impression even more than he, for she possessed a classic and serene beauty of countenance and form that is inherently associated with the finest grace and beauty of the ancient nations, with the most delicate sculptures of ancient art. Her brown eyes were warm and her bronze hair was piled in a low coiffure. She, too, was dressed in a white gown and sandals.

Upon seeing us she came forward smiling, with a

really touching gladness to see us, considering that we were absolute strangers. I wondered how long she had been there. As if by thought transference, her first formal words, in inexperienced but perfect English, related to that.

"I cannot convey to you what joy I have at your coming. I, who have not seen another living being in the flesh, except my father, for—"

"Hush, my dear," her father interrupted. "They have not yet learned about all that, and it would be to no end to mystify them further. This, gentlemen, is my daughter Laelia. She already knows you. Is luncheon ready, Laelia?

"Right in here," she said merrily, the formality gone.

The meal was excellent. To my surprise (which, by the way, was rapidly becoming deadened, due to overuse, and which later became, to all practical purposes, non-existent) fresh vegetables and fruits were included. We soon dropped any formality there might have been, and became very friendly. We found both our host and hostess to be quite as charming as our first impression had led us to believe them to be. The questions in the minds of Carl and me were not entered upon, although remarks by the others led to the bewildering conclusion that they had very intimate and thorough knowledge of the life and customs of the inhabitants of Earth. Laelia inadvertently mentioned that a new musical comedy was to open that night in a New York theatre, creating the impression that she was eagerly anticipating it.

After lunch, Marcus Titilius led us back into the living room, where we settled in three of the comfortable chairs. Laelia had not accompanied us; doubtless we were to have the explanation of the marvelous things about us. Almost ludicrously we were handed fine cigars; I should not have been greatly surprised had there been a well known band about each one.

"Well," commenced Marcus Titilius, "since you have no desire for sleep, nothing, probably, could interest you more at this time than a history of *Martia*, and perhaps of myself. I shall start at the beginning. Are you sure you are quite comfortable, first?"

"In age I seem to you elderly, but hardly a Methuselah. In matter of fact, however, I am more ancient than any other Earth-man ever lived to be, for I was born nearly nineteen centuries ago, a few years after the birth of Christ, and to free parents, in the Imperial City of Rome, during the reign of Augustus Caesar. My early life was unimportant, and little need be said of it. My parents were very wealthy, so I did not have to work to earn my living. When very young I became so interested in the poor science of the day, and in the future I believed it to have, that I made it my life work. For thirty years I was at my eternal experimenting, and learned much; but the world knew nothing of it, nor, I resolved, would it ever gain the benefits of my work, for I had earned unpopularity and hatred among the Romans because of my faith, which was that of Christ. Consequently I had the deepest dislike for them also.

"One day a large metal ball, a foot in diameter, was brought to me by a trusted and loyal slave. He had found it floating in the sea a few feet from shore. In appearance it was a minute counterpart of *Martia*. I succeeded in forcing it open and found it fitted out inside with small and totally unfamiliar machinery. Also, there were a number of manuscripts, written in Latin and addressed to me, Marcus Titilius, Roma, Tellus.

(Rome, Earth). The first sheet explained that the thing came from the planet Mars! Naturally, I did not believe it. Such a thing would be jeered at on Earth even at this advanced time. But there were proofs in the remaining pages, which, if they did not absolutely convince me, made me believe that the thing was possible and even probable. I was directed to make a machine, for which very exact specifications were given, with which I might talk to Mars. There were, also, two or three small chunks of metal unknown to Earth and some chemicals, equally unknown, which were necessary for the proposed machine. I went to work on the project immediately. It required nearly two months to complete, for my tools were crude and my knowledge still cruder. Finally, however, it was done, and I had the indescribable thrill of talking through interstellar space.

"The Martians were many times more advanced than the inhabitants of Earth are today, and, of course, very much more so than the people of my time. They were similar to men, except for their greater lung development to enable them to breathe the rarer air, and certain other more minor variations. The greater part of Mars was inhabitable and was peopled by an enormous population—much greater, per unit area, than the modern Chinese. They were a happy people, not warlike, and nearly all scientists of one sort or another. They had made their planet as near a Utopia as mortal is able to endure. Their knowledge and advancement seemed, and still seem to me, as nearly the highest of achievement for living beings."

"But the one thing that marred all this was the knowledge that theirs was a dying race. Their air was thin, but it was able to sustain life and would have continued to do so for some time if it had not been for one thing. There was, in their atmosphere, a subtle matter more elusive than ether—that is, it had absolutely no characteristics by which it might be recognized. Yet they knew it was there, for they found that they could not live in manufactured air. This matter was everywhere slowly disappearing. To attempt to manufacture it was impossible. To migrate to Earth was equally so because that atmosphere could not sustain them. They had no hope, then, of avoiding their imminent fate, but they did not wish that their magnificent knowledge and culture should die with them, so they selected the inhabitants of Earth as their heirs. However, they judged that Rome and her neighbors were too primitive, too cruel, too money-loving, too warlike to have the gift bestowed upon them. Therefore they selected me, because I had some knowledge of science and held little intercourse with my fellow men, as the guardian of the wealth destined for my planet when it should show itself worthy.

"Two years after I established relations with the Red Planet, this great machine, *Martia*, was sent to me. It was fully fitted out as you see it and had been packed with thousands of books, and models of every great Martian contrivance. This was to be my home until I should consider my planet worthy of its inheritance. I was, thanks to a marvelous discovery of my benefactors, assured of life for many thousands of years.

"I boarded *Martia* as soon as it arrived and set out into interstellar space immediately, taking with me my sole relative, my daughter Laelia. We advanced under our own power for millions of miles and then allowed

Martia to revolve about the sun. We lived here very happily. I was always engrossed in my science and in learning more of the endless knowledge contained in the volumes here, and Laelia could always watch, through telescope-like machines having very high magnifying properties and the quality of being able to penetrate solids, the doings and entertainments of the Earth-people. Fifty years after our embarkment, the ethereal matter in the Martian atmosphere suddenly began to disappear very rapidly, and the inhabitants died off like flies. Within two months Mars was a dead world. It affected me terribly, for I had held almost daily intercourse with them."

The speaker paused, and then: "I still remain here, and shall continue to, keeping Earth's heritage until the time that it shall come of age. That time is not yet come, for our world is still too primitive and money-loving and warlike—a terrible war a brief ten years ago was brought on by the discord and selfishness of the nations."

After Marcus Titillius had finished, we sat quite still for a few minutes, Carl and I trying to digest all that we had heard, while the old man was reminiscing.

"Why such a huge door in the side?" asked Carl.

"To accommodate Martian visitors in fliers if they should have come. None ever did, though."

"How was this long life of yours brought about?" I questioned.

"Oh, renewing and replacing the living cells of the body. For a while the Martians kept me from growing old and dying by operating my apparatus from their planet, and I did the same for my daughter, but after the Martian calamity I had to teach Laelia. In addition to keeping us young, I am able to repair any part of the body rendered unfit by accident. Laelia did that when I lost the sight of both eyes by a chemical explosion."

A wild, dizzying idea came into my head. Almost breathlessly I explained to my host that my death was near because of heart disease. He did not wait for my question, but said:

"My dear sir, I shall be delighted to perform such an operation for you. It will be very simple and absolutely without danger, I assure you. The necessary slits in your breast can be reknit so that no trace will be left of them. There will be no blood, no convalescing. You will be able to do whatever you like ten seconds after you come out of the anesthetic. If you wish, we'll step into the room set apart for that at once. It will not take more than a half hour."

It was as simple as that. I accompanied him to the operating room, which looked more like a chemical laboratory, stripped to the waist at his direction, and lay down on a white table. I inhaled a not unpleasant smelling anesthetic and knew no more. Twenty-five minutes later I regained consciousness, feeling no effect. Yet Marcus Titillius assured me that the operation was successfully concluded, and Carl told me I had been sliced like a sausage twenty minutes before. I have told how I felt previously at the thought of early and inevitable death, so my feelings at this point can be better imagined than related. But so unbelieving is man, that in the bottom of my heart I was still a little incredulous, and remained so until time convinced me that the miracle was really true.

Then our host conducted us on a long tour through the tiny world of *Martia*. Immense as it had seemed from the outside, the number of its compartments seemed

countless when we went through them. We saw huge rooms filled with books—geography, literature, science, and even examples of lighter fiction—model machines, pictures—everything very compact, the reading matter boiled down, the books printed on thin sheets of paper, all done to accommodate the whole of remaining Martian greatness. Our conductor explained everything, yet did it in such a manner that he never told anything that might lead to Earth's receiving part of her inheritance prematurely. Most interesting to us, perhaps, were the great super-telescopic machines. These were able to penetrate throughout the universe and threw upon a screen a view on any planet at any degree of focus. Thus we were able to see a play in New York, Earth, as if we were not twenty feet from the actors. We viewed the pathetic desolation of Mars' ruined cities and the living monstrosities of the satellites of Jupiter. As we were gazing upon those last, Marcus Titillius switched back to the theatre. He adjusted the dials of another machine, and we were listening to the voices of the players! Not only sight, but sound! It was this, then, that Laelia had referred to when she spoke of the opening night she was to attend. Here were all the varied scenes of life on Earth at one's instant command. A war or a play, America or China, at the turn of a dial. Here was the explanation of how a young girl had withstood over eighteen centuries of near solitude.

We visited the many laboratories where the master of *Martia* spent his days. We saw the gardens, flooded with artificial sunlight, planted with everything imaginable, that supplied the necessary food. Our host explained to us that he was able to manufacture a food substitute in the form of tablets, but they were undesirable both to his daughter and himself, because their continual use would cause a disuse of the stomach and digestive organs, thus altering the shape of the body, which was unthinkable, especially to Laelia, because of their constant, though unseen contact with the people of the mother planet.

So interested were we travelers in the amazing things we saw about us that it was after the supper hour before we were aware that time had passed. We returned to the living quarters for the meal, but had to wait a short time while Laelia saw how a motion picture on our planet was going to end! When she came, radiant and beautiful, to serve us, I could fairly hear my chum's heart thump. Or perhaps it was just my imagination. At any rate, he was rapidly falling in love. I had lost too many friends to the goddess of matrimony not to know the symptoms.

Carl and I were in the living room, later that evening, discussing the day's astounding events when we were startled to hear a hard feminine voice with a curious undercurrent of hilarity behind us:

"Hello, drug store cowboys! Let's take in a show, huh?"

Carl and I whirled simultaneously. It was Laelia, no longer in ancient garb, but wearing high heeled shoes, silk stockings, and satin dress in the latest of styles! She was smiling hugely at our astonishment. After the atmosphere of science and historic characters, it made me feel just a little homesick.

"Laelia!" exclaimed Carl.

"Name's Mamie," said the amazing personage, and then broke into gurgling laughter.

"Where did you get them?" I demanded.

"Made them myself. I've kept up with the fashions for ever so many years. The material is manufactured, of course. We couldn't raise silk worms. Don't you two want to come and see the new musical comedy?"

FOR months we lived thus in *Martia* in a state of existence approaching the ideal. Time ripened the first affection between Laelia and Carl into love. But soon after their engagement was announced—rather ludicrous, that, for after Laelia's father's permission was granted, I was the sole recipient of the announcement—I began to long, now that I was again a well man, for life on earth in more substance than its image thrown on a screen. This was a sentiment which my chum did not share, for a purely scientific life in the tiny planet would have appealed to him even had not a devotion to Lelia, who would not leave her father, stayed him. It was agreed, then, that I was to leave in Carl's flier for the Earth immediately after the wedding, which Marcus Titillius, as captain of a ship on the high ether was to perform.

Exactly nine months, to the day, after we had reached *Martia*, Lelia and Carl were married. Church bells on Earth chimed in our ears.

Four hours later I prepared to enter the flier, parting, with no little pain, from my chum and the friends who had become so dear.

"Bye, old top," said Carl, with the sparkle of a tear in his eye. "Take care of yourself. The estate and all that are yours. My father-in-law says that you may relate this adventure when you get back, if you wish to, but personally, I advise you against it. You'll be thought insane. You know how people are—no belief without absolute proof. As you wish though, about that. Are you sure you know how to run the machine?"

I nodded. Two minutes later, shouting good-bye to my friends and with their farewells ringing in my ears, I touched the little lever that closed the door. I strapped myself in the operator's chair, switched on the vision apparatus, and guided the craft through the great portal in the wall that had opened to receive me. Inside, I swung the controls to stop, and waited. It was from this chamber that the air was to be exhausted in preparation for entering the outer space. For fifteen minutes, the prescribed time, I waited; then the ship, at my direction, moved on again. In a moment I was outside *Martia*. I turned on, in all their tremendous power, the gravitational influence of Earth and the anti-gravitational forces of some of the other planets which were so situated that this could be done to advantage, and was racing toward my mother planet at awesome speed.

For three days the return trip was uneventful and boring. Even the vision machine was uninteresting

after the marvelous ones in *Martia*. Then, on the evening of the third day and last lap of my journey, I was horrified to find that the controls were not operating as they should. The power continued undiminished, but without proper direction it was worse than useless. Knowing nothing about the operation of the flier outside the instrument board, I did not dare to experiment with the intricate machinery, but had to content myself with fumbling desperately with the levers and dials, sweating blood, if mortal ever did. The force I had controlled now controlled me, whipping me about space like a tennis ball between the rackets of champions. For five dreadful hours I plunged straight for the flaming heart of the sun. Then a slight touch on a lever that I had previously tugged on vainly sent me off somewhere else again.

After four days of this nightmare, the controls suddenly and miraculously became partially effective again. With an immeasurably lighter heart I was again returning to Earth, but in a limping sort of a way, the flier moving at a much slower speed, and at times wandering irresponsibly off the course for short distances. The trip was without other mishap, however, so that in the early afternoon, five days later, twelve days after I left *Martia*, I bolted through the outer limits of the terrestrial atmosphere. Shortly, the flier was bouncing gently on the ground—in Mexico, as I learned later.

I opened the door immediately and leaped down, vastly relieved to be out of what had so nearly been my tomb. Hardly had I done so than the flier was off again, with a mighty swish—straight up. Unreliable, at the best, for the last few days, it had finally slipped all restraint and was off to roam space uncontrolled. I was glad to be rid of it; it was not until afterward that I remembered that the world would lose a great mind's greatest invention. Not interplanetary travel alone, either, for a month later the Price laboratory was completely demolished by a terrific explosion. It was not by Carl's design, for several workmen were killed.

I turned and walked slowly, for the sun was scorching, toward the little Mexican village I could see a mile or two off. It being siesta time, I learned later that none of the natives had noticed or heard anything peculiar. Thus the *Space Wanderer* had departed and returned unnoticed by all but a few men on the Price estate.

A week later I was on a ship for the United States, a well man now, looking forward to life with eagerness.

And often now it is my custom to gaze up into the unfathomable space beyond the clouds, thinking of my friends there, destined to live when I am ashes, and the little manufactured planet, swinging through space, bearing its precious burden, the *Heritage of Earth*.

THE END.

"AMAZING STORIES QUARTERLY"

Winter Edition

Science Fiction Stories by

I. M. Stephens and Fletcher Pratt—Harl Vincent—William Lemkin, Ph.D., and others

On Sale at all Newsstands—January 20th

The Racketeer Ray

By Murray Leinster

(Continued from page 1019)

The projector-beam struck some magnetic deposit on the moon. There was a pull of six hundred pounds on that deposit, and the same force—naturally—on the projector. I figure that it would rise, carrying that poor devil, at a hundred and twenty feet per second, and accelerating at the same rate as long as it operated. In less than fifteen minutes it would attain a speed sufficient to free it from the earth's gravitation. If the batteries lasted thirty minutes, the projector is now traveling away from earth at forty miles per second, having missed the moon by some thousands of miles. It will go on through space forever, with the projector and that poor devil frozen together into a tiny planetoid, until it is swallowed up in emptiness."

The Professor lay in silence for a full minute. Then he said relievedly:

"In any case, the projector cannot be duplicated by anyone else. When I recover, we can proceed with our plans and such others as may—er—develop. Tommy,

I observe that you and Joan are holding hands. I am going to sleep. I think that we will all be more comfortable if—since Joan insists on staying where I am—the two of you sit on the opposite side of that screen. I believe that you will feel less foolish, and I am sure that I approve heartily. Some twenty years ago I, also, found it highly satisfactory to hold a girl's hand and upon occasion—er—kiss her. While remote from intelligence, the action is not really incompatible with brains. So if you will oblige me . . ."

They obliged him. And it was only a little later that Joan said uneasily:

"T-tommy, do you think it's stupid to—kiss me?"

Tommy grinned. No man likes to admit that he has been acting like a fool.

"Lord, no!" said Tommy. "Brightest idea I ever had in my life! Just notice now while I kiss you, and see if you think it's stupid!"

And he did. And she didn't. Naturally!

THE END



In this department we shall discuss, every month, topics of interest to readers. The editors invite correspondence on all subjects directly or indirectly related to the stories appearing in this magazine. In case a special personal answer is required, a nominal fee of 25¢ to cover time and postage is required.

THE PSYCHOLOGY OF THE HUMAN MIND: WITH NOTES ON THE FEMALE DITTO. PERHAPS THE LADIES WILL DISAGREE WITH THE WRITER

Editor, AMAZING STORIES:

I would like to pass a few comments in reference to the story published in the November Editor, namely, "Automaton." I must compliment the author on such a fine story. He had obviously studied his theme very closely, that is regarding the mechanical details, although I can't say the same about the psychology of the human mind, which makes way for a little criticism. The writer most clearly states that "there is nothing in the human mind which makes such a statement like this, 'that love is only the repression of sexual desires,' yet in direct variance with such a statement, admits that he loves Theresa, who is the professor's ward, and "Theresa" in turn loves "Martin" most passionately yet, paradoxically, she stills her love for Martin and prefers a life interwoven with the iron monster. If the human (love) element must be considered in these stories, then let us have them more logical. And here is another thing—which did the machine prefer to have a woman to tend and care for it when it must have known that a woman is rarely logical, which fact must have communicated itself to the machine when she changed her mind with Martin. Now to a machine that has no feeling or sentiment, such an expression could only mean one thing, and that of a badly disordered thinking apparatus. And now for the last—why was it necessary to introduce the human element at all to replace the worn and broken parts? If the monster could reason, then it could only naturally see that

the human element would obviously fail at the most critical time. Also why could not the machine, like other machines construct another machine to tend it which would be absolutely infallible?

Referring to the human element again, whilst admitting the inconsistency of woman, would any woman sacrifice her love on the altar of fame in such a heartless manner?

Surely a man being the acme of efficiency would in time become a veritable Frankenstein to the human race.

Now for a few remarks about the mechanical construction of the "Automaton."

The *modus operandi* of the recording of impressions in the mind of the machine is quite comparable to the action of the human mind. Everything is recorded in memory, past cumulative experiences, or better known as the reflex action of the mind. We claim to have reasoning power, which, after all, is only the combining of past experiences. By comparing them, we arrive at a certain definition, and if anybody by chance departs in the slightest manner from this generally accepted fact, then he is termed "original," and "original" people are almost nonexistent. So, in no manner does the thinking operation differ from the machine that derived all its knowledge in the same manner as the human mind.

And if you will excuse the temerity on my part, I would suggest that if the recording device could get into immediate contact with a human mind, namely through the optic nerve and relayed to the nerve centers, or in the case of the machine, through the optic or focal lamp, which is placed in the center of the head and then relayed to the brain or recording center; now if the actual recording could remain as small isolated fields of force as in

the case of its human contemporary, instead of the mechanical method now used at present, it would be considerably more efficient and more possible. Then the impulse or impression that was transposed upon the optic or focal eye of the machine would be governed by the refracted light of any object that came in focus of the eye, and that impulse being predominant at the time would register the impression accordingly. The power necessary to move the machine would be enormous to last for any length of time, unless the dream of using the power of the atom is eventually solved. Well, Mr. Editor, I must apologize for taking up so much of your valuable time, but I suggest that you get the author to write some more of his stories; it is very nice that we get an author to venture into mechanics, and I, for my part, certainly appreciate them.

The other stories are very good in this month's edition, but I like this one the best.

Mr. W. Fairman,
600 West 17th Street,
New York City.

The opening lines of your letter, we feel, are very pleasing. They indicate that the story you refer to brought out rather a deeply founded criticism and that certainly is a great compliment for the author's work. You make a very unusual error when you speak of Frankenstein. He was no man, but a story, a book, a horror manufacturer of a monster. This error is so common that you will find it noted in the dictionary. We let the rest of your letter, which we consider highly interesting, speak for itself and we are sure that your criticism will please the author.—EDITOR.)

(Continued on page 1047)

In the Realm of Books

The Insect Menace

"Man Versus Insects" (*The Insect Menace*) by L. O. Howard. Published by The Century Company, 353 Fourth Avenue, New York. \$3.50.

MOSQUITOES and missionaries arrive in Honolulu at the same time" is a current phrase in that far-away paradise, and it seems that when a human pest appears, it is also accompanied by liberations of insect pests. The author, Dr. Howard, who is the dean of American Entomologists, shows clearly that the enormous increase of our insect enemies is chiefly due to increased cultivation and facilitated transportation, aided by the well-known stupidity of the always reactionary farmer who jeers at advice and refuses to adopt better methods. The spread of the corn borer in the U. S. is largely due to the apparently ineradicable habit of the United States farmer of leaving the dry corn stalks standing in the fields during the winter, thereby furnishing an excellent breeding ground for next year's crop of corn borers. For years and years he has been pleaded with by scientists to burn or bury the stalks, but to no avail, and the result is that every year at the corn season, thousands of automobileists are held up and annoyed by state troopers with the usual query: "Have you got any corn?" A well-meaning but futile gesture.

Dr. Howard thinks the outlook is quite serious, but that man can win out against the ever-increasing hordes of ferocious and all-devouring insects if he wakes up and devotes part of his time, intelligence, and labor to the fight against the insect menace.

Give it credence or not, this menace is very real. Reliable governmental statistics show huge sums lost annually through insect damages to crops. The annual loss in the United States is estimated at two thousand two hundred million dollars, against which sum the large annual fire loss of one hundred forty-three million seems insignificant.

Other countries report proportionately large sums.

Aside from damages to crops, there is an enormous loss of animal and human life directly traceable to insects. The formerly constantly recurring epidemics of yellow fever have almost completely disappeared, thanks to the vigorous efforts to destroy one fever-carrying mosquito. Another tribe of mosquitoes is a carrier of malaria, and the damages caused by this disease cannot even be estimated. The ravages caused by the common housefly, a typhoid carrier, and the devastating effect of the tsetse fly responsible for the spread of the sleeping sickness are well known to almost everyone. To any reader who wishes to study about this particular phase of insect menace, the book "Insects and Diseases" by Doane is recommended.

It still seems to be an open question whether the human race or the insect will inhabit the Earth, and it is high time, Dr. Howard thinks, that organized and systematized efforts are made to combat the insect danger with which this book tries to accost the reader. Their truly astounding fertility, their swift development to maturity, and their almost magical ability to adapt themselves rapidly to any and all conditions, and any number

of other factors pointing to their final victory—all this is described and pictured with great vividness and marked lucidity.

The insects had a very early start on this planet, starting their activities over 40 million years ago. In this unthinkably long stretch, they developed incredible strength, highly efficient respiratory and super-efficient digestive tracts far surpassing humanity. Though certain social developments amongst the insects, see ants, bees, wasps, etc., certainly show a high degree of intelligence, on the whole, most of the really destructive insects are not particularly intelligent, which fact looks like a large ray of hope.

There are also bright spots in Dr. Howard's book, not only gloom—to wit: the passages devoted to our insect friends, of which he personally studied 113 species. This is a rather small percentage, considering the fact that 4 million species of insects are existing.

Dr. Howard's book is a very interesting one. It is a veritable treasure chamber of knowledge and for most readers it will be a new land, whose exploration is seriously recommended.

—C. A. Brandt.

Seemingly, It Won't Work!

"The Coming of the Amazons," by Owen Johnson. Published by Longmans, Green & Co., New York, 251 pages. \$2.00.

ERRITRUE ATHERTON calls this book: "original and appalling," and suggests to the world in general: "Read it and be warned."

To one who has passed on thousands of scientific fiction stories, the "Coming of the Amazons" is neither very original nor very appalling, but just the same it is a book worth while reading, particularly so if you are tired of the gangster and love novels which are inundating today's book market.

"The Coming of the Amazons" is filled with stuff which is meat and drink to the scientific fiction fan: robots, in the shape of beetles, doors which open only in reaction to properly impinged thought waves, super-super telescopes, interplanetary communication, etc., etc.

To me, the theme of feminine supremacy is an old one, occurring with great regularity and frequency, but it has seldom been handled as skillfully and cleverly as in this particular book. This female-ruled world, which Johnson depicts in his book, has many very pleasing aspects, and it must be admitted that the women of the future have done a very good job indeed. There are no more gangsters, no more crooks and lawyers, no more prohibition. The servant problem has been solved or done away with, as the intelligence tests conducted in early childhood clearly indicate the future usefulness of the individual, whether fitted for domestic servant, scientist, historian, etc.

The hero, one John Bogardus, who appears to be somewhat hampered by an austere mother-in-law and a Latin poetry writing—militantly reforming—lawyer-sister-in-law, accepts the proposition of Dr. Sachaloff to be put into a condition of suspended animation, which, coupled with intense refrigeration, will preserve

him alive and unchanged for several centuries.

John comes back to life in the year 2181, in a hospital suspended in the air above what once was New York, now housing only about fifty thousand people. It is built on the ruins of old New York of skyscraper fame, which all were destroyed in a gigantic World War, which, by destroying most of the male population of the world, enabled the women to grab hold of the government, and to relegate mere man to the position of temporary husband to any woman desiring the joys of motherhood.

In the hospital John sees nothing but women—nurses, doctors, internes—all are females. He becomes the protégé of Acquila, who belongs to the ruling class, the MINERVENES, the Scientists. Brought to her house, in a robot-driven automatic air taxi, he is somewhat shocked when she calmly and most naturally joins him *au naturel* in the swimming pool, all inhibitions having been educated away. Under the female régime, the span of youth and life has been lengthened considerably, and Acquila, looking twenty-four to John, confesses that she is barely seventy-six.

The young-old Acquila, as well as Mag, a maid-servant of herculean proportions, and also several friends of the charming Acquila, fall violently in love with John, being so very different from the males of their era, but John falls in love with Dianne, an unusually attractive opera singer.

Throughout the book there are very interesting talks between John and the various Amazons he meets, which always bring him into emotional opposition to the ruling sex.

He has a serious controversy with Doctrina, the head of the supreme council of rulers. Doctrina is pictured as a blend of a certain female magistrate recently dismissed in disgrace and the president of the league for the advance of intolerance and the suppression of thirst, in other words a most awful specimen—judging by present-day standards, of course.

John's arrival has upset the calm of the female state to such an extent that it is being considered advisable to refrigerate him again, and preserve him for the peoples of another future century, and waiting the final decision of the supreme council, John is confined in one of the many male "Clubs" or Seraglios, where the males are kept in luxurious captivity, awaiting their selection for propagating purposes. His beloved Dianne has promised to use her influence to have him released as quickly as possible.

However, when John witnesses the "Parade of the Male Débutants" where a group of eligible young men deport themselves like the members of a "Pansy Club," he breaks out in open revolt. He wins the confidence and support of the pampered males and starts a revolution à la Lysistrata with reverse "English," by pledging the members to total abstinence from all female charms.

This, of course, upsets the female state to its very foundations, and as all males remain true to their pledge, he wins back for his sex the vote and full political rights.

The "Coming of the Amazons" is a very amusing satire, and worth while reading.—C. A. Brandt.

A MOST INTERESTING LETTER FROM ACROSS THE PACIFIC OCEAN

Editor, Amazing Stories: I have become a reader of AMAZING STORIES for many years now, in fact, almost from the beginning. I have always liked science and scientific. Science has always been one of my chief enjoyments. Even when four years old, I used to play about with batteries, electric lamps, induction coils and electric bells.

My first scientific was Arthur B. Reeves' "Exploits of Elmer" (read when I was seven years old) and R. Austin Freeman's "Red Thumk Mark." These were enjoyed because of their science content. There lies my first demand:

I want stories based on science, filled with science. Stories that are possible (and I do not mind, if probable). There must not be any scientific inaccuracies.

Now, for illustrations. The last I have seen yet was on a rival magazine. Now you had a chance for something equally good and impressive in the "Spaceounds of IPC." In Part I, you give a black and white drawing by Wesso. Now, if this had been properly colored and put on the cover, I think Paul would be tearing his hair with jealousy. I do not remember seeing either or Bob Dean for some time now, and I do not know how to get them (tell 'em I said so). Morey and Wesso are improving, but Paul is still several leaps ahead. Why not scatter illustrations through the stories? The following stories, I consider poor: "The Secret Kingdom" (made worse by the illustrations), "Reclaimers of the Ice," "The Black Hand," "The Art of Retupin," "Television Hill," "Second Middle," and "The Red Ray." (I want sequel.)

The following were good: "A Baby on Neptune," "Airlines," "Second Swarm," "Educated Pill," "Prince of Liars," "Drums of Tapajos," "Cosmic Power," "Eclipses Special," "Anachronism," "The Extiminator," "Beastmen," "Cave," and "The Man in the Moon" (but not "The Dragon of Space"). "Absolute Zero," all the humorous stories about "The Revolving Dinner Table," etc., "The Thing That Walked in the Rain" and "The Valley of Titans" were medium. So was "The Earth's Cancer" and "The Flying Thrust." "The Second Swarm" and "The Skylar of Space" ("Skylark Hill") and "Spaceounds of IPC" are not good.

Is Coblenz, the author, any relation to Coblenz, the scientist? I like Coblenz's stories. I consider Meek a good author. Why are so many stories labelled: "Reminiscent of Merritt"? I never see any labelled "Reminiscent of Smith," etc. Tell the authors to avoid use of old-style speech. In an ultra-modern time, we find people dressed like Greeks and saying "Thou now, Aurelius! What wouldst thou do?"

I have one big complaint. A couple of years ago you advertised a free story "The Vanguard of Venus." I applied for it, but did not get it. (Waste of a good penny-half-penny stamp.)

One good change since AMAZING STORIES changed hands: No more reprints of Jules Verne or H. G. Wells. Remember More humorous stories and better science!

P. S.—Why not reprint some of the best stories from the first three or four issues? (Or print one each month.)

Why not devote one page or one-half page each month to dissertation or explanation of some new or great scientific achievement?

John Wm. Sturde,
7 Adeline Street,
Preston, N. 18,
Victoria, Australia.

(You certainly began your work in science at a very early age. You are going to see that a reader and student like me, reading Amazing Stories, "The Vanguard of Venus" which was published several years ago used to be given away without charge. Naturally, the supply was exhausted.

Our magazine with the exception of the Editorial and Discussions comments is essentially a story magazine and we do not believe the public would be interested in a special look with favor on an innovation that would necessitate cutting down on stories. At best, we would have room for only a very superficial account of new scientific theories, which could be gotten with greater advantage from a science magazine, devoted to just that.

Coblenz, the author is no relative of William Wetmore, the physician or Virgil C., the chemist.—Editor.)

AN INTERESTING LETTER ABOUT DISPLAYS OF PHOSPHORESCENT OR ELECTRICAL COLD LIGHT

Editor, Amazing Stories:

Perhaps readers of AMAZING STORIES who also read the *Herald Tribune Magazine* had the good fortune to notice the article by Charles Fitzburgh Talman, on "Unsolved Mysteries of Light" in the issue of July 19th last.

But for the great majority who, no doubt, were not acquainted enough, I should like to take the time and space—with your kind permission—to review the article.

There have been many curious cases, extending back over a period of sixty or seventy years, of phenomena appearing of will-o'-the-wisp phantom lights, reported from all quarters of the globe, but never in one place more than a time or two.

The most recorded instance was that of two women, on the south coast of England near Ringstead Bay. The weather that day—it was in 1876—was sultry, with lowering clouds, and the air surcharged with latent electricity. Suddenly the two women noticed, on all sides of them, dozens of globes of light, of the size of hillside balls, floating in the air. The women started to group themselves around the manifestations, which always seemed to move. This example is given in a reliable scientific journal—not susceptible to wild speculation.

Dr. Mathew Luckish, author, and authority on light and its properties, had a like experience. He was hiking over the desert near Cheyenne, Wyoming, one night, when he came to a place where recent rains had left large pools of water standing. While passing one of these pools, Dr. Luckish observed hundreds of small globes of light hovering in the air above the water, some stationary and others darting rapidly about (*Shades of Merritt's "Moon Pool!"*) This display continued for more than an hour.

There have been hundreds of other similar sights reported, and it is odd that, in this day of keen scientific research and curiosity, these weird things should be totally ignored.

Then, there is the story—absolutely authentic—of the British man o' war *Caroline*, which was, at the time, cruising in the North China Seas. About 10 P. M., one cold, moonlit night, three small lights were seen to appear beneath the masts of the ship. There were many of the strange things, which resembled gay Chinese lanterns. The following night the same lights appeared, and continued until daybreak. Through telescopes the spheres were reddish in color and seemed to give off a thin trail of smoke.

And then there are the tales of great sheets of vari-colored lights playing around isolated mountain-tops at night—or the solid walls of light-flame sweeping across the snow-fields of the Andes—or the famous "Fire Shop of Bay Chaleus" in Canada—of the not-so-mysterious St. Elmo's fire. And others too numerous to mention.

Many theories have been put forth as to the cause of these ghostly manifestations, but none seem completely satisfying or enlightening. One of the most acceptable is the theory that the will-o'-wisp lights may be remote or directly akin to the "cold-lights," the same type of luminescence given off by fireflies, and the phosphorescent fibre of decaying wood. Professor Frazee and Sanford suggest that these sheets of light might be attributed to luminescent bacteria, coming from standing water or damp ground.

These explanations are all right as far as they go but in my humble opinion they don't go far enough! Why not invite readers with a more liberal scientific knowledge to contribute their ideas on the subject? And it is a most fascinating one—one that will stand much real thought and discussion.

We have had, in AMAZING STORIES, tales which dealt with weirdly glowing lights, such as Merritt's "Moon Pool," and Williamson's recent "Stone from the Green Star." But, so far, there has been nothing dealing directly with the things I have mentioned.

Louis C. Smith,
1908 98th Avenue,
Oakland, Calif.

(We have little to say in response to your little treatise on these chemical or electrical displays. We hope, however, that it will be taken up by the reader and that an interesting discussion on the subject will result.—Editor.)

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SOME DIFFICULT PROPOSITIONS IN "SUBMICROSCOPIC" AN INTERESTING LETTER FROM ENGLAND.

Editor, AMAZING STORIES:

Ever since I discovered AMAZING STORIES about a year ago, I have read every number I could obtain.

I have just received the August number in which you print a story called "Submicroscopic." This story gives me an excuse for writing to you. The author has made a slight error. After the hero has increased his size, he does not realize he has done so until he sees himself. The scale registers twelve hundred pounds.

Actually there should be no increase of weight at all, as the hero merely altered the distance between the atoms of his body, without increasing the amount of matter present.

I should like to ask you a question on the same subject. When he shrinks to the lowest possible size, would he be able to move? Would the shrinkage in volume of the powder lessen the power of the discharge or would it remain the same? If the latter, the bullet would be clean set out of Uml, to a relative distance of millions of miles.

Nevertheless it was a good story and I only criticized it in order to have something to write.

All your stories are excellent. I am afraid it is not original to say I liked "Skylark Three," but I'll say it just the same.

I think these stories are popular because they really give the impression that the reader is contemporary with the events described.

For instance in "Spacehounds of IPC" the space-ship check-up tends to indicate the fact at atmosphere is most amazing adventure. Space flying seems as ordinary an occurrence as ordinary flying, in fact so every day, that it is already full of regulations.

No other writer in my experience has this gift.

Well I've said enough, but I must mention the villainous qualities of the villain. I don't think you would injure anyone's patriotism as long as you didn't make the villain either a coward or a fool. I don't mind reading about blackhearted Englishmen, but I'm hanged if I like 'em chicken-hearted or adule-headed.

However, it's always safer to let the noble and heroic Terrestrians band together to resist the evil machinations of dastardly invaders from alien planets.

Keep the magazine as it is and you won't go wrong.

T. H. Callard,
123 South Road,
Grays, Essex, England.

(What you call a slight error of the author is not an error of mine. Why should not the alteration in the size involve the gain or loss of atoms or more accurately of molecules? However, although you object to the ballistics, also, you say it was a good story and we are glad to have your criticisms. In the "Spacehounds" story, the interplanetary flying is made to appear an entirely everyday matter, but this is not the case. The surface of the world we now understand to be extremely solid. We hope this letter will get you in touch with some of our people who desire to have correspondents devoted to this class of work. There are a number of writers who wish to open correspondence. You will find their names and addresses in these columns.—EDITOR.)

A LETTER WE ARE GLAD TO PRINT

Editor, AMAZING STORIES:

Although I have not written you before, on account of having had ample time, I'm now doing so because I can't refrain from sending you my own viewpoints.

I've been reading "our mag" ever since the beginning, and I find it has steadily been improving, lately, especially your Quarterly, which was really superb in the Spring, 1931, issue. Smith, Edmund, Miles J. Breuer, and Edward Smith, are the authors I like best, but John W. Campbell is a real genius. Your short stories and "Islands of Space" is one of the best, if not the best, that you've printed. Its science and its theme are really excellent. Besides, it proves beyond contradiction, the uselessness of putting romance in a good science-fiction story.

Generally, the interplanetary and those closely akin to them, like those dealing with strange rates, such as the infratronic ones, are by far,

the best stories, on account of their vastly greater, and much more thrilling field.

And now, for a brickbat. In your August, 1931, issue, you published two very poor stories. Although "Spacehounds of IPC" was excellent, "Submicroscopic" even if it is interesting, was full of holes and flaws, and devoid of a single scientific explanation. And as for the bottom of all the trouble: "The Forgotten World," was unsound, unscientific, uninteresting, full of contradictions, and a whole net of coincidences, with which the author tried to cover its flaws. It was not worthy of publication, let alone in AMAZING STORIES, but nor even in the worst science-fiction filler. The author tries to make it scientific, by talking of half a dozen strange and peculiar elements, to be had as abundantly as water at the South Pole.

But now don't think I'm trying to criticize AMAZING STORIES. All on the contrary, I think it's the best magazine printed in its class.

As for your article "Weiss" is the best, although he is a bit heavy-handed, especially drawings and Morey has surprised him. Wouldn't it be better to give us more drawings per story, as you did last year, in the monthly?

And just to finish, I'd like to ask a few questions. Couldn't it be possible to develop an infra-red or ultra-violet varnish, out of range of our vision; and if so, what color would it appear? Red? Orange? Yellow? Just black? 2. If a powerful electromagnet's S. pole were at the Earth's N. pole (same name) would it effect an appreciable repulsion?

3. Is gravity a wave force?

Arnold Gutierrez Vogel,
126 Hamburg Street,
Mexico City, D. F.,
Mexico.

(We accept all kinds of criticism and we think when they are of a definitely personal type and have an abusive cast, that in printing them verbatim, the writer suffers, not we. We edit them a little, but definitely very little. We are not here to tell you what you say about Mr. Campbell. We claim to be the best critics in the country. If you will let us go a little further, we will almost say that we are his creator and he certainly has made an astonishing success with our readers. We do not want to educate the public or to tell them what they should like, but we are sure that we have readers who enjoy a touch of romance in our stories. To cite one story which you object to, "Submicroscopic" is definitely not a story hardly subject to such criticism as you give it. Many have admired and enjoyed reading it. We have in a general way adopted the system of giving one illustration for each story, yet it seems that there is something to be said in favor of giving more illustrations and smaller ones. We doubt very much whether the illustrations suggested will ever be made. Presumably, objects painted with such a varnish would appear black. The North of the earth and the South Pole of the magnet would normally attract each other. The dipping compass illustrates this. The relativists dismiss the idea that the supposed force of gravity exists. It attributes the curved path of projectiles to the curvature of space, so we cannot state definitely that it is a wave force. If you will look at Sir Jeans' Book, the "Universe Around Us," you will find a good deal about the modern ideas of the nature of gravity and you should keep in mind that they are subject to constant change as they are purely theoretical.—EDITOR.)

A CANADIAN CORRESPONDENT'S VIEWS ON AMERICA

Editor, AMAZING STORIES:

My object in writing this letter is not for the sake of seeing it in print. This is immaterial to me. On the other hand I do not intend to criticize or particularly analyze any artist. These are quite satisfactory to me. I have the habit of reading your magazine for its entertainment, rather than its scientific value. I have been reading it practically ever since it came out and I will continue to do so regardless of what I think of it at times. Once before, I wrote another letter expressing my desire to receive a copy of your Quarterly. I received it, however, instead of a long novel and three or four short stories. My letter has been ignored completely, coming from a Canadian. This is to be expected. Now I come to the object of this letter. If it is ignored, I have the satisfaction of getting it off my chest. My dear sir, why is it that according to every story in your magazines, The United States of America seems to be the only country known amongst the in-

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How to know if he loves you
How to acquire bodily grace and beauty
How to keep hands, hair, teeth and feet
How to assure charm
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A SPIRITED LETTER FROM ONE OF OUR YOUNGER READERS, WHO HAS EXPRESSED SOME INTERESTING VIEWS

Editor, AMAZING STORIES:

I have been reading AMAZING STORIES for about one year and this is my first letter to "Discussions." Naturally I have a few brick-bats that I would like to comment on, but like I have not missed a single issue since I started to read your magazine and I have never found an unreadable story in it. There's one thing I dislike about A. S. and that is the announcement of a story for the next issue, and when I buy this issue, anticipating the pleasure of reading that very story, and run through the list of stories in the back page I am always glancing over to the list of next month's stories I find it listed again with a note under it saying crowded out of this issue. I know of nothing more disappointing. Say those guys that are always kicking about love in A. S. make me sick. What would life be without love? Nonetheless it's just as well that one should be in a story as to love at any other time. Kick about love will continue to roll in until A. S. no longer exists, but I hope that time never comes.

I have just gotten the December issue and I notice there is to be a sequel to "The Jameson Satellite," next month. Hot Dog! That story was the best ever, but its sequel is not crowded out of the January issue. I also notice that "In the Realm of Books" is degenerating. None of the books discussed in the December issue struck me as amazing or of a science-fiction nature. Science-fiction magazine readers look for science-fiction books also.

All of your artists are good but I have never tried to guess which is the better. If one is good in creating strange creatures of other worlds, the other is better at inventing queer machines, so I leave it to you to choose your artists. The editors at the front of every issue always interest me. They bring out amazing facts unknown to most people about the most commonplace things.

Anyone wishing to write to me is welcome, especially science-fiction readers. I am 15 years old.

Carl Johnson,
129 Campbell Street,
Danville, Virginia.

(We are sorry that we disappoint you, but stories will inevitably be crowded out from time to time. Personally, we highly approve of a little touch of love which appears in some of our stories and are very glad to get so clear an expression as yours. In the section devoted to book reviews, it is restricted to books of scientific fiction and these are rather few and far between. We are trying to keep it up to a pretty good standard, and are in touch with the publishers to give us the material by issuing books. What you say about the Editorial touches on a line of thought which they seem to have followed perhaps without the writer realizing it. There are in science so many curious things that many of them seem to be forgotten and in need of re-discovery. In the past and their desperate efforts to grasp the ways of nature and their rejection of what seems to us now the absolutely obvious, some very curious illustrations of groping after the truth can be found in the past.—EDITOR.)

AN INVETERATE READER OF SCIENCE TOPICS WRITES ABOUT THE STARS AND SPACE

Editor, AMAZING STORIES:

I have been a reader of the AMAZING STORIES for the past two years. This is the first time I have attempted to write or make any comment of consequence about the articles and stories in the A. S. I have a question, though, and I will read this as he is responsible for my writing. I disagree with his idea of the Impossibility of the speed Dr. Smith depicted in his story, "Skylark Three," as it has not been proven impossible and Mr. Cook contradicts him, by declaring that many stars we see are moving faster than light. I do not believe that heavenly body must travel at a greater speed than light in order for us to see its many apparitions simultaneously. If he does not believe it impossible to exceed the speed of light, how does he explain the theory of the many apparitions? Mr. Cook also says the Universe is not finite. An object having limits must have a boundary. What is on the other side of

the supposed boundary? I enjoyed the story by Captain Meek, and I hope "Sunmicrosopic" will be as good as it is now. I enjoyed "A. S. I also enjoyed "The Super-Man" and hope Mr. Johnson will continue the Prince James series of stories as all of the past have been interesting. I hope the future stories will measure up to the standards of the past ones.

I am 17 years old, but I have been interested in scientific fiction and facts for the past 3 years and read all I possibly can on the subjects.

Melvin Wallace Hughes,
1621 12th Street, N. W.,
Washington, D. C.

(We do not feel that our authors in writing what we consider amateur stories are in all cases bound by the limitations of Einstein's theory. Of course, the commencement of the story may indicate that the author is following Einstein, in which case he must take cognizance of the Fitzgerald contraction, limitation of speed and the other elements of this difficult theory. So we go ahead with our stories, although they may violate Einstein's theory.)

The way you ask your question is quite interesting. You ask one very old question to the effect that if we go to the boundary of space and through something across it, how do we affect it? You will find this is in the old-time philosophies.

Captain Meek is one of our best authors. He is a man in himself and a highly educated scientist. His work is typical of what we are striving for. Our effort is to combine instruction with amusement in our stories and we can assure you that they make a successful blend. It is not easy.

Our readers want romance and adventure in tales of what may come about in the future. If a lot of dry-dust science is brought in by the cart, as they say, the consequence would be quite sad.—EDITOR.)

**A COMPLIMENT FROM AN EMINENT PROFESSOR IN PHILADELPHIA.
"THE DISCS OF THE PLANETARY WORLD" COMMENDED**

Editor, AMAZING STORIES:

Oh, boy! this last edition of AMAZING STORIES certainly was a knock-out. Such originality of thought made the magazine this time the best, I think, for a long time. "Sky Cop," by Harold Vincent and Cyril Roy Cox, was by far the best short story published in the magazine this issue. Vivid descriptions and originality make it a corker. There was one mistake in this story, I think, that any writer could easily have overlooked. When the rays were turned on the raw protoplasm monster and cut it into sections, it was possible for an animal of the class "Protosoz" to be cut into sections. It is my idea that it would go through convulsions as it is in pain. It is an idea that I have had of the class "Protosoz" can be divided in pieces and each piece resume activities without pain. I might be wrong, but I think not. I was very disappointed in the new serial, "The Inevitable Conflict," it seemed so foolish. Such useless disputes made it seem so. Of course, I guess it is the opinion of most, but I think that it cannot compare with "Speechless." Your editorial, "The Discs of the Planetary World" was the best yet. Lately, I have studied, extensively, astronomy and this topic came just in time. We didn't have any stories by Dra. Smith & Keller. I think they are both writing the best for next issue. AMAZING STORIES recently received a communication from a cardiologist in one of the public high schools in Philadelphia. When asked what he thought of the magazine, he replied "They are very instructive and interesting and I would recommend them to every one." No truer words can be spoken.

Charles C. Yeager, Jr.,
8058 Crispin Street,
Hollensburg, Philadelphia, Pa.

(We think the question is open to discussion and any answer given it is open to doubt, as to whether a Protozoa suffers pain when it is cut apart, so we would not consider that opens up a claim to be made in the future.)

We still have Dr. Smith and Dr. Keller with us, but we have many manuscripts on hand and it is, of course, impossible to publish all we should like to publish in a short space of time.

We are greatly delighted with the compliment you quote from the Professor in Philadelphia.—EDITOR.)



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A VALUABLE AND WELL THOUGHT OUT LETTER OF APPRECIATION

Editor, Amazing Stories:

Having been a reader of various science-fiction magazines for several years, off and on, with yours leading in preference, I consider myself a veteran reader. I am particularly interested in this type of fiction, but I do not know why, except, perhaps, because it leads me into places and strange doings where I must have to go to see them in this lifetime. I love to look at the stars and just speculate as to what unseen planets are whirling around them in their endless orbits and what strange and bizarre things one might find there. And I am somehow utterly depressed when I think of the appalling, unthinkable void that lies between us of the earth and them. The nearest star is said to take 4 years to reach if we traveled at the speed of light. And the farther away we can reach with our mightiest telescope would take trillions upon trillions of years at the same rate of speed. And man may hope to reach a speed of a thousand miles an hour during the next ten years.

As my thoughts turn to the infinitely large, so they turn to the infinitely small—the complexities of all the matter about us. I like to think that it is a fact that infinitely small people live upon the electrons. And I like to think that these people also are made of matter which contains molecules and atoms and electrons upon which live more people. And so on, ad infinitum, until we come to the end of something-or-other. In this connection has excelled in his writings, while in the interstellar travel Dr. Smith's writings pre-

dominate. My thoughts turn to the infinitely large, so that I turn to the infinitely small—the complexities of all the matter about us. I like to think that it is a fact that infinitely small people live upon the electrons. And I like to think that these people also are made of matter which contains molecules and atoms and electrons upon which live more people. And so on, ad infinitum, until we come to the end of something-or-other. In this connection has excelled in his writings, while in the interstellar travel Dr. Smith's writings pre-

dominate. As a writer who always brings something new in his writing, I like name Dr. Keller, who is my favorite among science-fiction writers. His style is always interesting and almost always he has an O. Henry ending for his tales. His real life characters in his stories, and there are wit and humor, sorrow, tragedy, sacrifice, love, correct science, and everything that makes a true scientific fiction story. I will be in touch with Dr. Keller, I will put Dr. Breuer, who, however, does not come up to the former by a long shot.

I have prepared the following list of really hackneyed ideas which, if I had my way, would be used in stories very seldom.

1. The disintegration of an object by means of destructive rays.

2. Invincibility caused by forcing light waves around an object.

3. A mankind-soured maniac whose revenge is to be the conquering of the world.

4. The destruction of a valuable apparatus at the termination of a white-haired old professor's story.

5. Allowing an object to pass to a different plane of existence, or the fourth dimension.

6. Warlike invasions from planets other than our own.

7. The escaping of monsters which have been enlarged from a small state to a giganic one by means of a strange process.

8. Rocket space ships.

9. Crocodile, frog, sun, globe, disk, cube people; ray tubes, cubes, spheres disks.

R. L. Rocklin,
254 Calhoun Street,
Cincinnati, Ohio.

(You certainly express in the opening paragraph of your letter the feelings of the Editor of this magazine with regard to astronomical distances and times. We cannot conceive of the distances of the stars and can only express them in numbers. When a person loses the faculty of being astonished, he parts with an important mental factor. The scientist, even in abstract investigations, must use his imagination and that implies that he must not lose the inspiration of astonishment. We are glad to read what you say about Dr. Keller. He has the faculty of giving the O. Henry touch in the last few lines of his story. We take great pleasure in publishing your list of hackneyed ideas. We have not given your list of stories, because the list coincides very closely with preferences expressed by other readers.)



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J. E. SMITH, President
National Radio Institute, Dept. 2BSA, Washington, D. C.

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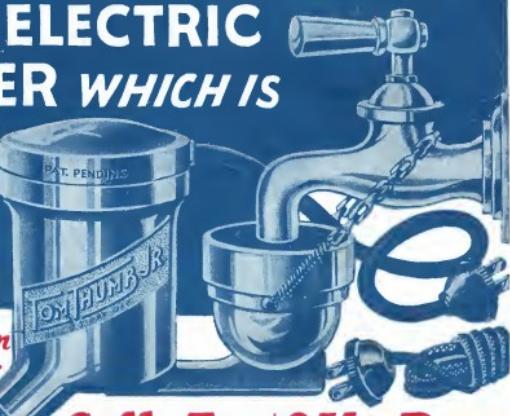
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